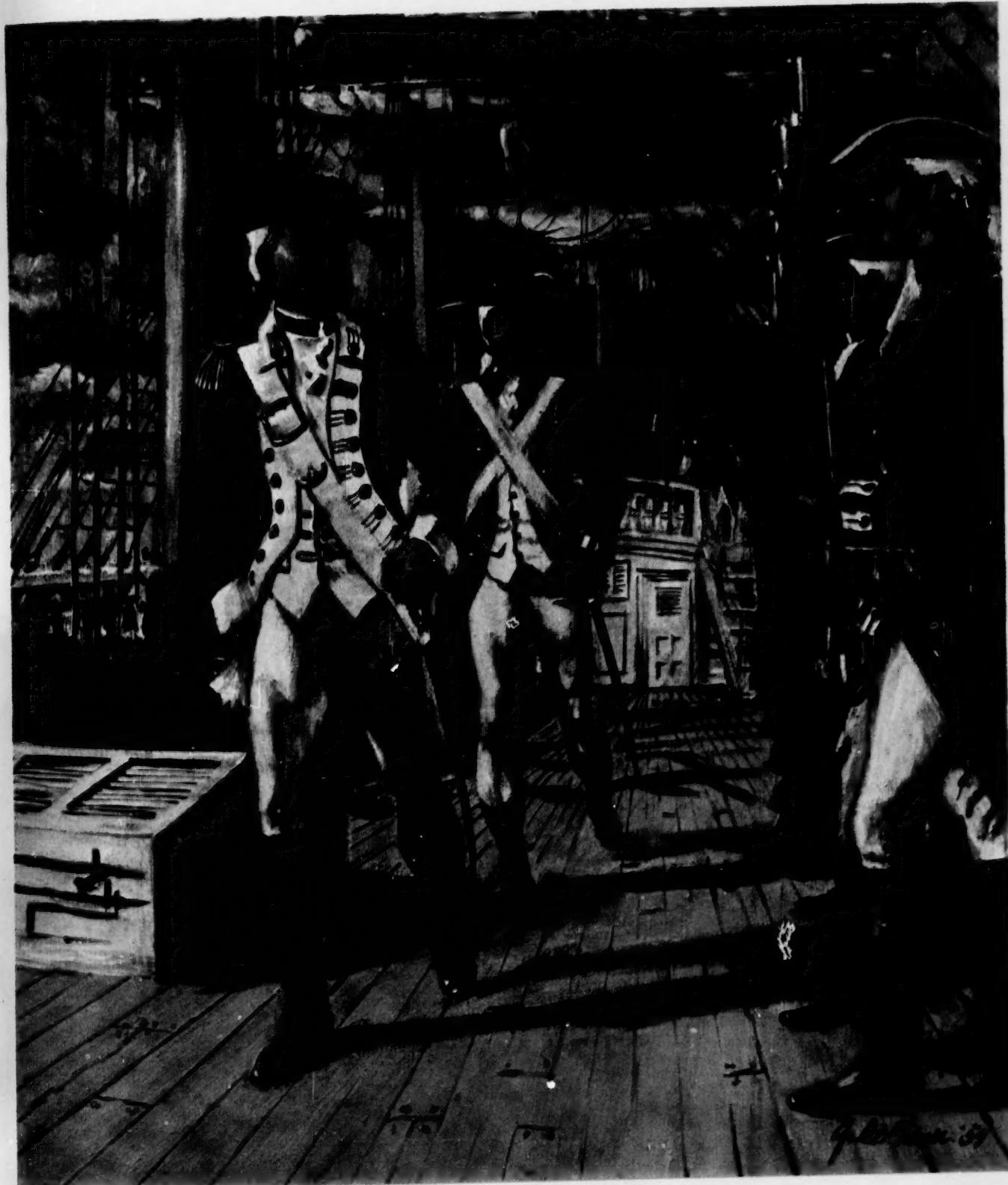


Marine Corps Gazette

FEB 1959

FORTY CENTS



Marine Corps Gazette

FEBRUARY 1959

NUMBER 2

VOLUME 43

Published by the Marine Corps Association in order to provide a forum for the expression of matters which will advance knowledge, interest and esprit in the Marine Corps

IN THIS ISSUE

THE SECOND DIMENSION	1st Lt James A. Prestridge, Jr.	8
NO COMPROMISE	Col W. E. Barnes	12
DECORATIONS AND AWARDS		18
THE ATOMIC BOMB AND THE JAPANESE SURRENDER	Dr. Louis Morton	20
IS YOUR PRESTIGE SHOWING?	A. L. Petry	29
COLD WEATHER TRAINING		32
ANTIMISSILE DEFENSE OF A PORT	B Gen W. R. Wendt, USMC(Ret)	36
STICK OF THE QUEEN	AMSGT T. W. Elliott	42
FORCE RECON — BY LAND, SEA AND AIR	B Gen H. Nickerson, Jr.	44
MISSILES AREN'T MYSTERIOUS	1st Lt David J. Dunn	52



MESSAGE CENTER	2
IN BRIEF	34
BOOKS ON PARADE	50
OBSERVATION POST	58
PASSING IN REVIEW	62

THIS MONTH'S COVER Marines, circa 1775
by AMSGT John DeGrasse

PUBLISHED MONTHLY BY THE MARINE CORPS ASSOCIATION

Copyright 1959 by the MARINE CORPS ASSOCIATION, Box 1844, Quantico, Va. Entered as second-class matter at the Post Offices at Quantico, Va. and Baltimore, Md. Subscription rates, \$4.00 a year; \$7.00 for 2 years; \$9.50 for 3 years. Foreign subscriptions, \$5.00 a year (except US possessions and Canada). Every effort will be made to return material not accepted for publication, but no liability is assumed by the Association. All pictures are official Department of Defense photos unless otherwise credited.

Advertising Representative: Shannon & Associates Inc., New York (28 West 44th Street), Chicago, Atlanta, Cleveland, Detroit, Los Angeles and San Francisco. Printed at 32nd St. and Elm Ave., Baltimore 11, Md.

Editor in Chief

BGen S. R. Shaw

Editorial Board

Col O. R. Simpson
Col N. J. Anderson
LtCol A. A. Elder
LtCol E. H. Railsback
LtCol R. B. Neville
LtCol J. C. Short
Maj L. T. Bohl, Jr.

Editor and Publisher

LtCol John A. Crown

Managing Editor

Maj Clyde B. Shropshire

Business Manager

Maj Arnold S. Baker

Promotion Manager

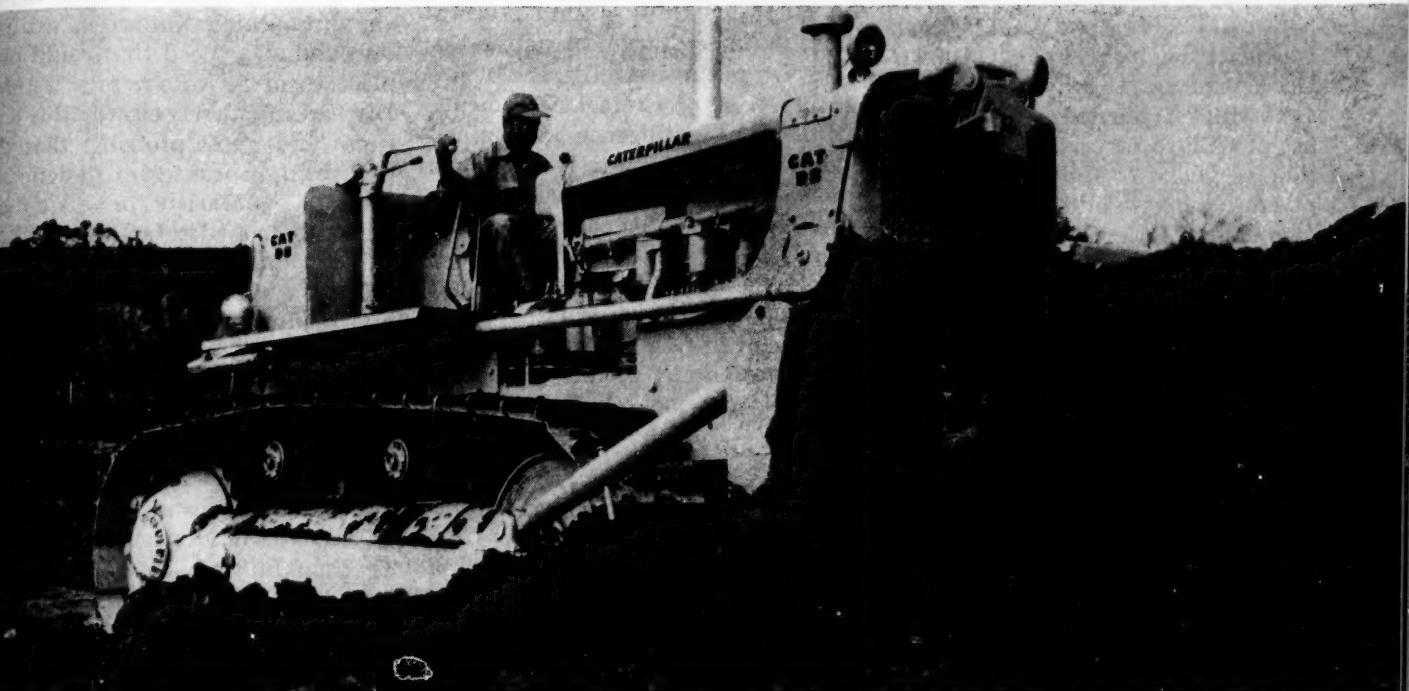
Fred T. Stolley

Opinions expressed in the Gazette do not necessarily reflect the attitude of the Navy Department nor of Headquarters, United States Marine Corps



PROJECT PAYDIRT pays off for you

NEW CAT D8 TRACTOR SERIES H



BULLDOZING: PRODUCTION UP... PUSHLOADING: PRODUCTION UP

HORSEPOWER INCREASED 18%—up to 225 from 191 (flywheel).

DRAWBAR HORSEPOWER—up to 180 from 155.

SIZE INCREASED—weight up approximately 4,400 lb. to 47,000 lbs., gauge widened to 84 inches.

LIFETIME-LUBRICATED ROLLERS AND IDLERS—never need further lubrication until rebuilding.

NEW, STRONGER, HEAVIER UNDERCARRIAGE—every component stronger through improved materials and heat treat processes.

SIX DIRECTLY REVERSING SPEEDS—high forward is 6.3 MPH, reverse is 6.4 MPH (direct drive).

DRY-TYPE AIR CLEANER—removes 99.8% of dirt in intake air even under severe operating conditions.

GREATER STABILITY—with 5,505 square inches of track on ground.

BETTER VISIBILITY—new seat placement, location of console-type controls increases operator efficiency.

DEPENDABLE OIL CLUTCH—key retained feature for direct drive; practically eliminates clutch down time.

The new Caterpillar D8 Series H Tractor is ready *now* to increase its lead as undisputed king in its size class. A major achievement of Caterpillar's all-out research program, "Project Paydirt" (see box), the new D8 has been proved by a rigorous field testing program.

This D8 is new in design, appearance and performance. It is bigger, more powerful. It incorporates dramatic new engineering advances. It is easier to operate. And *more economical to own*.

All across the nation—and around the world—in every application, the new D8 will improve standards of earthmoving production.

Caterpillar Tractor Co., Peoria, Illinois, U. S. A.

CATERPILLAR

Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

**BORN IN RESEARCH...
TESTED IN THE FIELD**



PROJECT PAYDIRT: Caterpillar's multi-million-dollar research program—to meet the coming challenge of the greatest construction era in history with the highest production earthmoving machines ever developed.



Hagaru Puzzle

... Mr. Montross in "Hagaru, Perimeter of Necessity" (GAZETTE: Dec '58) is not the only one who was (and still is) puzzled as to the failure of CCF to perceive the key position of Hagaru. Indeed, CCF also failed to perceive other key positions at Toktong Pass, Koto-ri and Chinhung-ni as well.

In retrospect, a much keener way to analyze than introspect, I believe there are attributable reasons for CCF's apparent failure to pick the "right place and the right time." If one reads the military theories of CCF as expressed by Mao, the theoretical "cut-off, surround, and destroy" tenet is quite evident. The failure of CCF to carry out the "thought processes" of Red China's leader is due, in my opinion, to 2 major tactical weaknesses of CCF: Intelligence and Communications.

Many of us often wondered why CCF committed so much strength and effort against the powerful 5th and 7th RCTs at Yudam-ni and during their withdrawal to Hagaru. Many of us also felt the 2 heavy attacks against Hagaru were but forerunners of even heavier attacks to come before it could be reinforced by 5th and 7th RCTs. Koto-ri, although a little more difficult for CCF to reach, was in its own right nearly as important as Hagaru, representing as it did the key to movement into and through Funchilin Pass, enroute to the railhead at Chinhung-ni, thence down the valley to the more open country in the Hamhung complex.

But to go back to CCF's major tactical weaknesses, one must keep in mind that CCF had no air reconnaissance to tell them where major formations of 1stMarDiv were

located. They were required to rely on ground patrols, ground observation, or interrogation of native Koreans, for positive Intelligence of size and location of 1stMarDiv elements. Once such Intelligence was gained (and foot patrolling in North Korea in the winter is slow going) this information had to be passed to a CCF headquarters which could do something about it in a hurry. Here the problem of communications enters the picture. CCF radio equipment was non-existent at low levels and probably not too reliable at higher



levels. Not only did the laboriously collected Intelligence have to be digested by a high CCF headquarters, but the problem of tactical control back down the line to lower units had to be exercised. It must be remembered also that political commissars were to be consulted at various levels of command prior to committing troops to a selected course of action. Attacks by major CCF formations often appeared to be based on an operation order consisting of a direction of attack and designation of an objective, i.e. "assemble on the objective, destroying enemy forces between you and the objective."

Ample evidence exists that no provision or no means existed to alter a CCF attack plan once committed to action. Recent Intelligence indicates that this will not continue to be so, and flexibility of battle plans will be introduced to CCF. A good example of CCF inflexibility (again I feel due to lack of Intelligence and control) was exhibited as the rear of 1st MarDiv pulled out of Koto-ri. A strong CCF column was observed by air approaching Koto-ri in a direction and at a speed that could only place them in Koto-ri after 1stMarDiv had completely cleared this position. It is most probable that this CCF column was again designed to "cut-off" 1stMarDiv or major elements thereof. 1stMarDiv permitted this column to place itself in a defile, then subjected it to heavy air attack after the Division rear had cleared the Koto-ri area. Had this CCF column cut in below Chinhung-ni, 1stMarDiv would have had another major force with which to contend enroute to Hamhung.

Whatever reasoning was behind CCF tactics in North Korea, we may be thankful that the Chinese followed the pattern of attriting themselves against our major formations (and I include our battalion perimeters in this classification). Had CCF seized and held strongly the several key positions on our withdrawal route, we would have been required to mount heavy and costly attacks against their positions. As it was they managed in most cases to impale themselves on our fire power. The resolute Marine in position with an efficient and well supplied weapon is a tough customer to overcome. This is a principle of which we must not lose sight even in this day and age of widely dispersed formations. Far be it from me to urge a defensive philosophy but we should not forget that many a foe has come to grief attacking us rather than vice versa.

Whistles, hand signals, and bugles may be all right on the battlefields at company level, but these aural and visual means of communication do not influence or change the disposi-

(Continued on page 4)

The GAZETTE will pay \$5.00 for each letter published in Message Center

How telephone research "saves 77 years"



When the boy Galileo first observed the regular motion of a cathedral lamp set swinging by the wind, he had no thought of inventing the pendulum clock.

It wasn't until 77 years later that Huygens picked up Galileo's notes and applied the pendulum principle (no matter how far the pendulum swings, its movement consumes the same time) to an actual working clock.

The creative thinker today still does not always have a specific use in mind when, by equation or formula, he branches off from the accepted or ordinarily observed to the hitherto unknown. The classic invention of this decade, the transistor, evolved in the Bell Telephone Laboratories as scientists sought a deeper understanding of semiconductors. On the other hand, another great invention, the feedback amplifier, came from the acutely creative mind of one Bell engineer faced with a specific problem.

Current Bell Telephone Laboratories activities—in such areas as data transmission, radar and submarine cable development—call for the coordinated efforts of all types of thinkers and all types of approaches. One type complements another.

Today, 77 years would not have elapsed between the swinging lamp and the swinging clock pendulum—certainly not at Bell Laboratories, where ideas, though not rushed, are carefully advanced toward fruitful application in national defense, industry and communications. An important part of this harvest is the efficiency of America's telephone service, unequalled anywhere else in the world.

BELL TELEPHONE SYSTEM



(Continued from page 2)

tions of large battlefield formations in modern war. It is my firm conviction that had CCF owned and exercised the means to collect and disseminate combat intelligence rapidly, and to control and direct large battlefield formations, the Reservoir campaign might have been the "coup de grace" for 1st MarDiv. I of course mean this statement in nowise to detract from the magnificent job of fighting by our troops of all ranks. I was in a very personal position to be thankful for the fighting ability of my brother Marines.

Mr. Montross is to be congratulated on his excellent reconstruction of those memorable days at Hagaru. I am sure that Col Tom Ridge and his valiant Marines of 3/1 plus "sundry attachments," will enjoy reading this fine article as much as I did. It is particularly appropriate that this piece would appear in the December issue, 8 years to the month since those trying days of the "Frozen Chosin."

BGen A. L. Bowser

1st MarDiv
Camp Pendleton, Calif.

Well Done

. . . Many thanks for sending me a copy of the **GAZETTE** with my Hagaru piece ("Hagaru: Perimeter of Necessity" Dec '58).

I don't believe that I ever took more satisfaction in the presentation of an article I had written. The makeup, the maps, the illustrations—particularly those illustrations!—were all that an author could ask.

My thanks go to you, the illustrator and the **GAZETTE** staff.

Lynn Montross

Historical Branch
HQMC

Training for Doctors

. . . With the emphasis currently placed on defense against special weapons and ABC warfare in general, I feel we have overlooked the education of the man on whose shoulders our nation, both civilian and military, will place much responsibility should such weapons ever be employed against us.

Who is this individual? Today, he is the unit surgeon. In most cases he is a fledgling young Reserve medical officer with aspirations to specialize in one medical field the minute he becomes Dr. Joseph Q.

Civilian. Tomorrow, he'll be a seasoned surgeon, the national authority whose articles are published in the American medical journals. But, young or old, civilian or military, general practitioner or specialist, he needs education along these lines, especially if he is expected to successfully conduct mass evacuation operations should the need arise. This education will serve him in civilian life as well as in the military, for like death, a special weapon is no respecter of persons. And what

E-6 converted to Acting Gunnery Sergeant E-6, could be referred to in the Unit Diary for accounting purposes as "AE-6" only, instead of ActGySgt which, with the use of an elite typewriter, just fits in the rank column of NAVMC 970-PD. The new rank of Gunnery Sergeant should be referred to as E-7. In the case of Sergeant Major use SME-9 and refer to Master Gunnery Sergeant as E-9. In the case of First Sergeant the designation FSE-8 and for Master Sergeant E-8 could be used.

The use of this system would perhaps preclude revision of the NAVMC 970-PD and it would prove far easier working with the Unit Diary.

AGySgt W. J. Harrer
ASgt R. A. Greene, Jr.

Marine Detachment
USNRC
Portsmouth, N.H.

Do You Have This Publication?

This Headquarters is in the process of enlarging the collection of the Archives and Historical Group, consisting of publications and documents which were issued in former years and which reflect amphibious warfare doctrine as it existed at the time of their issue.

Of particular interest, in the above connection, is a publication issued during the 1930's which dealt with the subject of Base Defense. Since no listing of this publication has been located to date, the exact designation is not known. However, the publication is known to have been published by the Marine Corps Schools, and is believed to have borne the designation, "MCS-3 Base Defense."

The Marine Corps Educational Center desires to obtain a copy of the publication described above for permanent retention, or in lieu thereof, on a temporary loan basis for use in reproducing a copy for the Historical Amphibious File.

The publication, if loaned to the Educational Center, will be handled with the utmost care and will be returned to the owner within 60 days of receipt.

The publication, or correspondence pertaining thereto, should be sent to: Director, Marine Corps Educational Center, Marine Corps Schools, Quantico, Virginia.

BGen V. H. Krulak

(Continued on page 6)

Marine Corps Gazette • February 1959

News Flash! U. S. MARINE CORPS GETS LOCKHEED GV-1 HERCULES Tanker/Assault Transport



GV-1 HERCULES refueling jet fighters at NAS, Patuxent River, Maryland



Feats of Hercules No. 8

The rugged go-anywhere, haul-anything Lockheed prop-jet HERCULES will soon proudly bear the insignia of the United States Marine Corps.

Famous around the world for its prodigious Feats of Hercules, this 62-ton, 6-miles-a-minute sky giant can be converted from troop-cargo carrier to in-flight refueling tanker—by installing auxiliary fuel tanks inside the plane's huge cargo compartment, and affixing wing-attached pods containing hose-reels and drogues. In a few minutes 6,000 gallons of fuel can be pumped from the HERCULES to the "nursing" fighters.

The huge cargo compartment of the GV-1 HERCULES can carry 92 battle-ready Marines or tanks,

artillery, airfield construction equipment, big missiles, ground support equipment. It can paradrop supplies and equipment with pinpoint accuracy—and holds the world's record for the heaviest load ever parachute-extracted from a plane: 30,370 pounds. The GV-1 HERCULES can land on short, rough fields, sand, snow or ice (when ski equipped), climbs 2450 feet-per-minute, cruises at 305 knots at altitudes over 35,000 feet, for distances over 3500 nautical miles.

Making tough jobs look easy is a tradition with the U. S. Marine Corps—and the Lockheed GV-1 HERCULES has the ruggedness and dependability to uphold that tradition wherever duty calls.

LOCKHEED means leadership

Lockheed Aircraft Corporation, GEORGIA DIVISION, Marietta, Georgia

PROP-JET TROOP TRANSPORTS/AIR FREIGHTERS • JET UTILITY TRAINERS/TRANSPORTS • NUCLEAR-POWERED AIRCRAFT • NUCLEAR PRODUCTS
AIRCRAFT MODERNIZATION/MODIFICATION • GROUND HANDLING EQUIPMENT • MISSILE SUPPORT EQUIPMENT

(Continued from page 4)

Habit Forming

. . . I just finished reading my November copy of the GAZETTE. Congratulations on the well-written articles. The brief but complete arguments will be a handy reference for future policy discussions.

Also I like the idea of a re-issue of last year's November cover. I think it might be a good idea to make that an annual habit. Those GAZETTE covers make an excellent wall piece when framed.

Keep up the good work.

Maj N. W. Hicks

809 Ridge Rd.
Falls Church, Va.

Ed: We appreciate the kind words, and are happy to report that the November cover will continue to be the same each year.

Training in Deprivation

. . . With reference to the exchange of views on the question of "hot chow" and "3 meals a day," the following quotation is not without significance. It comes from a lecture delivered by Otto Skorzeny, the exceedingly tough leader of as tough an outfit as the German Army produced between 1939 and 1945; and one that had liberal experience on the exacting Russian front:

"The Russian soldier can sleep without hurt in wringing wet clothes, live on roots from the fields, digest anything. He can tear hunks from a long-dead horse and march on refreshed. He can drink from marshes and shell holes, and subsist virtually without supply columns."

Those are the people with whom we may have to deal; and it is no good relying on superior fire power to beat them unless we can—when necessary—also under-starve them. In short, while maintaining the highest standard of subsistence compatible with a flexible, streamlined, uncongested logistics system, we also require a little serious training in deprivation.

On the Gallipoli peninsula in 1915 there were times when we had temporarily to go short of a lot of things to which we had become accustomed and had learned to look for as a matter of course. Their absence would have been felt far less acutely had our peace-time training included periodic exercises to ascer-

tain the minimum upon which troops can temporarily get along and still remain battle-worthy.

As things stand, their ability to under-starve us endows our most likely opponents with a military asset we have as yet done nothing to offset. We shall continue to suffer this handicap if we insist on trying to maintain in all circumstances the ideal of "3 meals a day."

Another matter: your reviewer, Col A. M. Fraser, appears to support the view that Capt Chichester, RN, did place his heavy cruiser *Immortalité* between VAdm Diederich's *Kaiserin*

2) The helmet straps shown here are the later model, light-colored web straps, whereas the chin strap of 1925 was still the WWI strap of brown leather.

3) The troops appear to be in a column of threes as per the 1939 *Infantry Drill Regulations*, whereas the normal column formation of 1925 would have been column of squads with a 4-man frontage.

4) In 1925, first-aid packets were worn on the right front of cartridge belts (see various Thomason sketches of the period, for example). Either your artist has forgotten them entirely or thinks they were worn on the back of the belt.

Though this is not an anachronism, I question the method of attachment of the platoon sergeant's holster to his web pistol belt. The artist seemingly visualizes the belt being slipped through the rear or inner side of the holster as was possible with the fair-leather (but not the web) belt. With this belt, the man's holster should be hooked on. Lest anyone get me wrong, I might add that this enlisted man, whom I described by job as a platoon sergeant would, in 1925, have been a staff sergeant, as the rank of platoon sergeant didn't come until 1935. His insignia as shown—by coincidence, I guess—are correct for the rating of staff sergeant in 1925.

Incidentally, so nobody will be confused, it might be well to underscore that this particular landing, on 15 January 1925, was simply that of a small ship's detachment (*USS Sacramento*), and not the famous 4th Marines, who didn't come to Shanghai until the winter of 1927.

Augusta and Commodore Dewey's *Olympia*. If ever he has the opportunity to delve into the Admiralty Archives and consult Capt Chichester's Letters of Service, his faith in the truth of what is often dismissed as no more than a picturesque legend will be very strongly fortified.

Maj Reginald Hargreaves

Beech Cottage
Wootton St. Lawrence
N. Basingstoke, Hants
England

As You Were

. . . There seem to be a few anachronisms in the cover of the January GAZETTE, which purports to depict the landing of Marines in Shanghai on 15 January 1925.

1) All hands are shown with roll-collar blouses, whereas the Marine Corps wore standing collar service uniforms, including greens, until 1928 (see Gazette: Nov '50, page 41).

. . . In the November GAZETTE (page 65) I note a recommended selection of books for children. Not included is *The Story of the U.S. Marines*, by Maj George P. Hunt. It is a crackerjack boys' history, and I am sure still in print in the Random House "Landmark" Series. I think we should push this all year, and imagine it would prove a hardy perennial.

Col R. D. Heinl, Jr.

G-3
HQMC

Preserver of Peace . . .

here
ored
p of
o of

in a
In-
the
925
oads

were
edge
ches
her
en-
on

ro-
at-
nt's
The
elt
or
os-
not
he
on.
ght
I
ver-
a
on
is
e,
ng

pe
r-
n
of
h

1
t

**Air Force
"Sunday
Punch"**

ATLAS

Boosted into space by the fiery thrust of three huge rocket engines, the seven-story Atlas intercontinental ballistic missile roars upward from its Cape Canaveral launching pad. Quickly it sheds the frost encrusting the liquid oxygen tank and races to its predetermined destination in the far reaches of the globe. In its size and range and capability, the Air Force Atlas is a

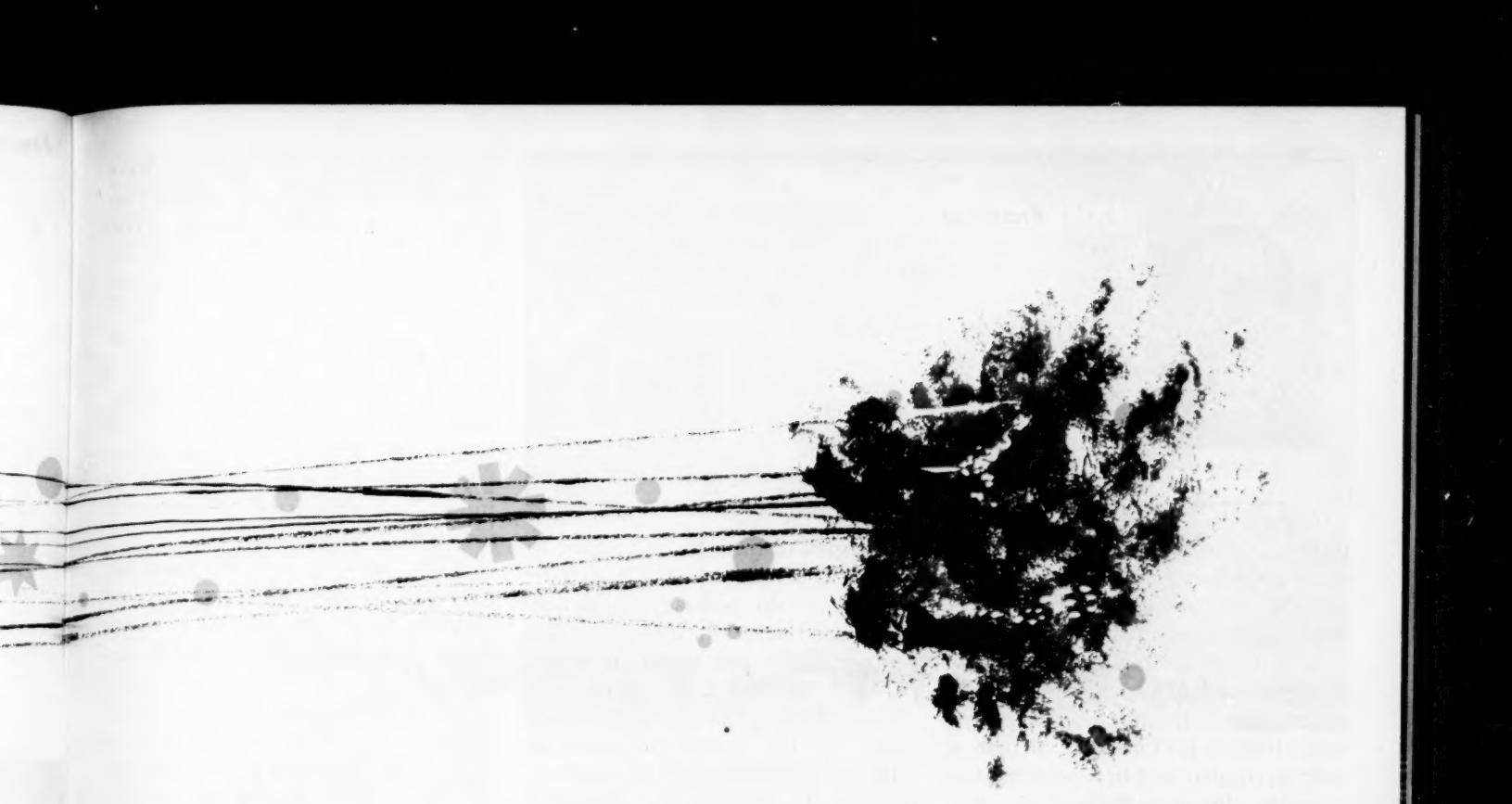
commentary, for all the world to heed, of the necessity to maintain the peace. RCA's Missile and Surface Radar Department has been privileged to design and develop ground check-out, launch control and cabling equipment as a major subcontractor to Convair (Astronautics) Division of General Dynamics Corporation, the Atlas prime weapons systems contractor.



RADIO CORPORATION of AMERICA

DEFENSE ELECTRONIC PRODUCTS
CAMDEN, N. J.





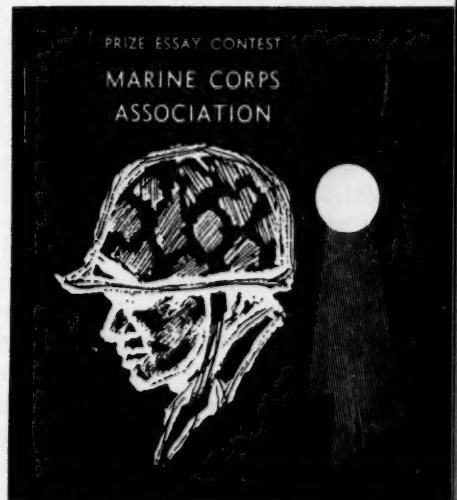
THE SECOND DIMENSION

By 1st Lt James A. Prestridge, Jr.

IN RECENT YEARS, MILITARY writers have devoted a great amount of study to a re-evaluation of Clausewitz' definition of the term "war." We now recognize that military operations are falling more into their classical role as an adjunct to diplomacy, and the employment of armed force does not necessarily denote the ultimate battle for national survival. We have, therefore, come to consider the possibility of fighting "limited wars." By so doing, we recognize, basically, that military force may be applied in varying degrees,

depending upon the political goal that originally dictated the use of some force. Consequently, we envisage the term "war" as encompassing a spectrum of activities ranging from local subversion to total atomic war.

Just as war may be conducted in degrees, it may also be conducted in more than one dimension. Broadly speaking, those operations with which the military is primarily concerned are carried out in either or both of 2 dimensions. The first of these we may call "combat" which is the application of some degree of



Group II Winner



1st Lt. Prestridge was commissioned in the Marine Corps in June of 1954 upon graduation from the Naval Academy. After completing Basic School, he served with: 7th Eng Bn; Marine Barracks, Guam; 2d SP Bn; and 8th Eng Bn. He states that he wrote this article because of a desire to foster discussion of the non-tactical problems of limited war. At the present time he is a student at the Graduate School of Business Administration, Harvard University.

physical force by the military. The second we may term "psychological warfare" and define as those activities which, directly or indirectly, seek through various methods such as terrorism and propaganda to adversely affect the morale, discipline, and ultimate performance of troops both in combat and in captivity. Historically, this second dimension has always been present in war to some degree. It has been only since the "brainwashing" of Korea, however, that we have come to appreciate the full potential significance of this dimension in modern war. Although, these 2 dimensions have in the past usually been coexistent, it does not necessarily follow that this will be the case in the future. Psychological warfare, because of the subtlety of its nature, may be carried out as effectively in nominal periods of peace as in time of armed conflict. Anything which tends to ultimately weaken morale and discipline in the armed forces is a potential tool in this dimension of war.

In considering the problems of limited war a great deal of attention has been given to the mechanics of fighting under new conditions. Our primary emphasis has, thus, been directed to that dimension defined as combat. It would seem that it is now time to more fully consider the problems of limited war as they pertain to the individual. In this consideration it must be borne in mind that psychological warfare is not limited to times of combat. Since there are aspects of combat in limited war that will facilitate the employment of psychological warfare, however, these will be considered first.

The conduct and scope of future military operations may be governed just as often by political expediency as by military necessity. Our political objectives will dictate the type

and degree of force to be applied in any given situation, and it will be the task of the military to furnish the desired force in the prescribed manner. In Korea, for instance, our political doctrine dictated an application of the principle of containment. In the future the scope of military operations may be similarly limited. In modern war "victory" may no longer denote the defeat of an enemy army, but rather the attainment of a political goal. Take the not implausible example of a military unit ordered to retreat as a political necessity when every purely military consideration indicates that an advance should be made, and one begins to understand the distortion present concepts may suffer. In the light of our present thinking, we can readily recognize a potential problem subject to considerable exploitation by enemy psychological warfare.

In addition, the political considerations which dictate the future use of force, or a course of action, may be difficult to explain and more difficult to justify. Fine distinctions may often exist that are beyond the discernment of all but the best informed. Consider the role of the Marine Corps in the Lebanese crisis. Had our landings been opposed and had we found it necessary to overcome this resistance, it might have appeared to many that our actions were not unlike those of the Russians in Hungary. A skillful enemy will cloud such distinctions so as to cause our troops to doubt the integrity of our actions.

It is also entirely conceivable that some future military operations will meet not only apathetic public opinion but also, on occasions, open hostility both at home and throughout the world. There is no guarantee that the body of world opinion will consider our future actions asulti-

mately just. In the past we have been able to confine our military activity to reasonably popular "crusades." The Korean War, while not necessarily popular, was at least not condemned by the mass of world public opinion. The Suez crisis, on the other hand, was more controversial. Had we found it politically expedient to cast our lot with our traditional Allies—and had it not precipitated world conflict—we might have supported an extremely unpopular cause.

If the fighting man does not understand his government's roles and responsibilities in actions of these types, and unless he is highly disciplined, he may fall victim to the enemy's application of psychological warfare. An enemy may do no more than create doubt as to the integrity of our actions in the individual's mind, but this doubt created in combat and exploited through a period of nominal peace may reveal its effects upon morale in a subsequent combat action entirely unrelated to the first.

Throughout the conduct of limited war we will be confronted with ever more effective psychological warfare which will attempt to expose our weaknesses, real or imagined, to the detriment of the efficiency of our fighting forces. The longer and more involved our limited war, the greater will be the threat to our morale and discipline. Furthermore, the threat is an immediate one for we are constantly in a state of limited war; only the dimensions and degree of force vary. An enemy who is able to plant his propaganda in the minds of our troops in garrison today is even more dangerous than one who plants it on the battlefield tomorrow. Thus it becomes apparent that we have a problem at hand that can only become more complex as the techniques of limited warfare become more highly developed.

In order to cope with this problem we must do at least 2 things. First, we must maintain and increase each Marine's unit pride and sense of teamwork. Second, we must revise our information program to develop a more informed Marine.

Maintaining unit pride and esprit de corps are traditional tasks in the Marine Corps. Simply stated this

state accrues when the principles of leadership are conscientiously applied. In addition, we must re-emphasize that type discipline which demands instant, unquestioning obedience. Every existing regulation and order should be diligently enforced lest the average Marine think his is a capricious organization not always meaning what it says. The Marine must be required to comply with regulations to such an extent that he develops an absolute, unquestioning faith that whatever he is told to do is, in fact, what he must do. In addition, the officers and non-commissioned officers must, by precept and example, demonstrate that the Marine Corps is a basically moral organization devoted to the service of the country. In effect, the men must be brought to such a high state of discipline—based upon a subconscious faith in the absolute integrity of the Marine Corps—that the most unscrupulous enemy will be unable to diminish their faith in the ultimate morality of anything they are required to do.

As a second step we must institute an information program of 2 parts. First, the traditions and history of the Marine Corps must be more actively emphasized. In this respect, we might do well to concern ourselves more with the history of the Corps in situations approximating those of limited war. World Wars I and II, although major sources of the finest Marine Corps history, were fought as popular crusades. We should, therefore, devote more time to such campaigns as the Nicaraguan in order to stress our traditional role in this type action. Second, we must institute a program to explain the degrees and dimensions of limited



war. The present information program is neither extensive nor explicit enough. Adequate reference material and a more complete syllabus must be prescribed. The presentation of such an indoctrination should not be left to the average military instructor, but should be placed in the hands of either the officer corps or special instructors. This indoctrination should include as a minimum:

1) An explanation of the degrees (local subversion to total atomic war) and dimensions (combat and psychological warfare) of limited war. It should be emphasized that some degree or dimension is continually present and will continue to be present so long as Communist goals remain unchanged.

2) A general historical tracing of Communist application of the principle of limited war in the post-

WWII period, and an explanation of the political necessity for counter-action.

3) An extension of the principles of the Code of Conduct to explicitly prescribe the individual's duty to resist enemy psychological warfare on the battlefield and in garrison.

This discussion is, by no means, a complete analysis of the difficulties to be presented by the second dimension of warfare. In Korea we found that some of our troops were not prepared to withstand enemy psychological warfare in captivity. In the future, because of new problems and techniques, we may find that our troops are not adequately prepared to withstand this type warfare either in garrison or in combat. We must attempt to anticipate future difficulties so as to be able to apply a remedy before, not after, the problem develops. USMC

★ ★ ★

"Come Again?"

THE LINE CHIEF DIDN'T EXACTLY STUTTER, he was a repeater . . . he repeated the last part of the end word of each sentence at least 3 times. His name was Brubaker. He would tell you . . . "Bru—baker-baker-baker."

One day a new plane was delivered to the squadron and the Pfc who painted the numbers on the plane asked the line chief what number had been assigned the new plane.

"It's going to be seven-seven-seven," the line chief told him . . . "That's right, seven-seven-seven!"

The Pfc went out and painted 777 on the plane.

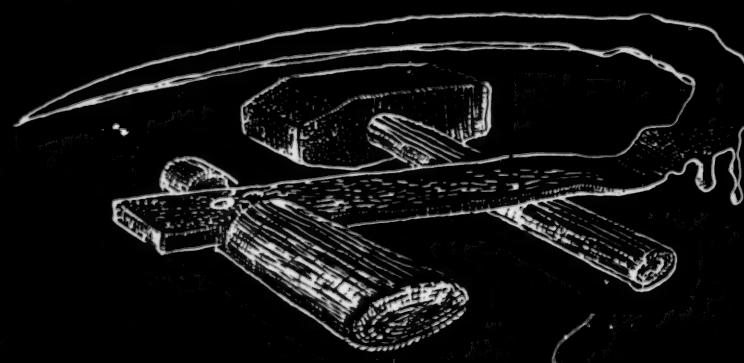
When the line chief saw it he went livid.

"You wise son-of-a-sea-cook-cook-cook," he shouted, "I told you seven-seven-seven!"

CWO Fred T. Stolley, USMC (Ret)

NO COMPROMISE

NOC



By Col. W. E. Barnes

DOWN IN MY PART OF THE SOUTH, the story is told about the elderly gentleman who liked to browse amongst the tombstones in the local graveyard, looking for interesting epitaphs. One day, the story goes, he found one which read, "Not Dead, Just Sleeping."

He stepped back, thought a moment while scratching his head, and finally muttered,

"Sure ain't foolin' nobody but his self!"

The punch line of that old story has popped into my mind many times in recent months during discussions of Communism. Here are

samples of what I've heard:

"There are only a handful of Communists in our country. We needn't worry about such a minority."

"Communism in the United States is only a political party; it should be given equal rights with the other political parties."

"The best way to deal with Communists is to let them work and live in our midst; then we can ridicule and shame them into being good citizens."

"We shouldn't bother about what Communists are doing in countries on the other side of the globe."



OCOMPROMISE

The people who made these comments live in San Francisco, Boston, Philadelphia, Cincinnati and many other big cities around the country. These words are out of the mouths of doctors, lawyers, industrialists, reserve officers, civic leaders — *responsible citizens*.

The attitudes reflected in such remarks result from the failure to understand the very real and dangerous threat of Communism to you and me.

We've certainly had plenty of warning about the danger. For 10 years now, our daily newspapers have been filled with stories about Communists and Communism. But this shot-gun type of publicity on the issue is missing the mark. Our prime target should be a full awareness on the part of every citizen, civilian and military, of the cold-blooded aims of the Communist against our civil liberties and democratic institutions.

The clash between the ideology of Soviet Communism and the ideology of the United States of America is so pronounced that there can be *no compromise*.

I believe it is high time that many Americans stopped fooling themselves about what the aims of global Communism *really are*.

I know why I went to Korea and I know why we, as Americans, must continue to oppose Communism. But I am shocked to find that a lot



Col Barnes was commissioned in July 1935 after attending the University of North Carolina and North Carolina State College. During WWII he served with the 7th Def Bn, Samoa, and at HQMC. He commanded the 1st Marines in Korea from July 1954 to Jan 1955 and has attended Senior School and the Industrial College of the Armed Forces. A member of the Joint Strategic Plans Group, Joint Staff, for two years, Col Barnes is now Director, 12th MCRD.

of Americans still don't see the basic reasons for resisting this insidious threat of global Communism. Some people won't believe yet that the unchanging goal of Communism is *world domination*.

If it is true that many people still fail to comprehend this ruthless menace to the principles by which we live, how can we wake these people from their "sleep"?

We must find a personal approach.

Each of us as an American places high value on his family, his job, his religion, his education, his private property, his freedom of the spoken and written word, and his political party. We want these things pretty much as they are, with minor changes perhaps. We are quick to clamor when someone even begins to infringe upon any of these personal areas of our lives.

What do you think would happen to these individual freedoms and democratic institutions if the day

ever comes when the Communist conspiracy gains control over the United States?

Let's not speculate. Let's not attempt to thresh out the meaning of "dialectical materialism," "dictatorship of the proletariat," and other such glittering theories. For the moment let's circumscribe complicated philosophies, even lay aside historical background.

Let's look at some hard facts about what the Communists have preached — and are still preaching today — about your family, job, religion, education, private property, freedom of speech, press and your political party. We'll document these facts with the words of the Communist authorities themselves.

Remember that under a Communist regime, all these directives would apply to you and me.

Our forefathers used the law to make our homes inviolable. With us, most family relationships are sacred.

On the other hand, the Communist Party recognizes the family first as the hub of its manpower supply. It has long kept close control over love, marriage, children and all aspects of family life. To do this, they use many techniques.

In the Soviet Union, the married man is expected to convert his wife to the Party.

"We are convinced that it would not be against, but rather for, the improvement of peaceful family relations if you would succeed in enrolling your wife in the Party."

If the foregoing isn't clear to him, he should be told:

"When choosing a life-mate, the Communist youth should look first for correct political thoughts and only afterward for education, temperament, health, and good looks. True love is somber, intellectual and definitely revolutionary."

... the unchanging goal of Communism is world domination.
... existence of the Soviet Republic side by side with the imperialist states for a long time is unthinkable.
"... THERE CAN BE NO COMPROMISE."
... ALL CAPITALIST PARTIES...
... WILL BE LIQUIDATED.
One or the other will finally triumph."

Well, under those rules, it certainly would be somber, if not revolutionary!

In our society, we take it for granted that a man has the freedom to work at a job of his own choosing, in fact, to go where he pleases to get that job. Not so under Communism.

In Russia, a man has a wide choice of jobs; he can work where the government assigns him—or he can work in a slave-labor camp. When more engineers, more teachers, more specialists of any kind are needed, likely candidates are selected and ordered to training. For them, it's as simple as that. The desire of the individual has nothing to do with what job he does, nor where he works.

"All those who graduate from the Trade Schools, Railroad Schools and Industrial Training Schools, are to be considered as mobilized and

are obliged to work 4 years continuously in state enterprises, as directed by the Central Labor Reserve Administration under the Council of People's Commissars of the USSR."

In case there is a question in your mind about whether such stringent measures are also used in handling supervisory and management personnel, read what follows.

The Central Government maintains:

"Complete authority for the forced transfer of engineers, designers, technicians, foremen, draftsmen, bookkeepers, economists, accountants and planning personnel, as well as skilled factory workers, from one enterprise or institution to another, regardless of the territorial location of the institution or enterprise."

Try to imagine what would be the reaction of the American people to directives like those!

If the Communists ever seized

power here, what would happen to the religious freedom which we have enjoyed since the first days of our republic? Undoubtedly the same thing that has happened to religion in Soviet Russia and in the satellite countries—it would be systematically wiped out. Here's how they feel about religion.

"The philosophy of Marxism-Leninism—the theoretical foundation of the Communist Party—is incompatible with religion. . . . The world outlook of the party is based on scientific data, while religion contradicts science. As the party bases its activity on a scientific foundation, it is bound to oppose religion. Religion is the opium of the people. . . . The criticism of religion is the beginning of all criticism."

A few decades ago, the Russian people were deeply religious. But how can they be religious now? The older generations which were reared in religion are being replaced by youth being brought up under guiding policies that a young man or woman cannot be a Communist youth unless he or she is free of religious convictions.

The American seeking an education has an opportunity that cannot be equalled elsewhere. And his freedom is great when he takes that opportunity.

We have already referred to the compulsory educational programs now in effect in the Soviet Union. The result of these has been startling. Hardly a person in the Soviet Union today under the age of 25 is illiterate if he is capable of learning. The Central Government wants to make the people literate. What better means could they employ to prepare the population for the assimilation of propaganda? To be really effective, propaganda must be read and understood.

They begin early with the youth.

"It is in the school at the desk, in the first class, that the foundations for a Communist outlook are laid in future Soviet citizens. The country entrusts the school with its most treasured possessions—its children—and no one should be allowed to indulge in the slightest deviation from the principles of the Communist materialistic upbringing of the new generation.

"The Soviet school cannot be satis-



UNATIONS

fied to rear merely educated persons. Basing itself on the facts and deductions of progressive science, it should instill the ideology of Communism in the minds of the young generation, shape a Marxist-Leninist world outlook and inculcate the spirit of Soviet patriotism and Bolshevik ideas in them."

How would you like your children to be fed this diet of learning?

We work hard to earn more and more of the things which we may enjoy under our high standard of living — homes, automobiles, TVs. Likewise, we give healthy regard to the problem of systematically amassing some little estate for our old age. Few Communists have those worries. The theory of the Communists may be summed up in one single sentence: Abolition of private property. The Party wants your body, mind and soul — and your personal property too.

More than any other country in the world, the United States has provided safeguards to insure our freedom of speech and press.

In contrast, their repression behind the Iron Curtain has been appalling to the rest of the world. Let's examine the use of their press.

Government officials openly announce that ". . . in the propaganda of Marxism-Leninism the chief decisive weapon must be the press." The Central Committee of the Communist Party appoints the editorial boards of the central press organs which work under its control and confirms the appointments of the editorial boards of the local Party organizations.

Editors must be hand-picked, of course.

"One of the first obligations of the Party leadership is to select newspaper workers meticulously, especially (to make) a strict approach to the choice of candidate for editor."

And lest there be a slip in a published word, they check, check, check.

"The press review is one of the most flexible and efficient means of directing the newspapers. Reviews indicate to the editorial offices what to do and how to do it, and teach and train journalists. . . . The newspapers must be directed daily."

Can you imagine not being able to state your own convictions? Not being able to read any news except that prepared by the Central Government?

Americans are the greatest joiners in the world. Most of us, during a lifetime, belong to at least a dozen or so clubs, associations, fraternal orders and other similar organizations. Communism would quickly take care of this habit of ours. Here's a shocker. William Z. Foster, American Communist leader, says, "Under the dictatorship, all the capitalist parties — Republican, Democratic, Progressive, Socialist etc. — will be liquidated, the Communist party functioning alone as the Party of the toiling masses. Likewise, will be dissolved all other organizations that are political props of the bourgeois rule, including chambers of commerce, employers' associations, rotary clubs, American Legion, YMCA and such fraternal orders as the Masons, Odd Fellows, Elks, Knights of Columbus, etc."

That language doesn't seem to require any interpretation.

Finally, here are two quotations which clearly indicate the ultimate goal of global Communism.

"We live . . . not only in a state but in a system of states, and the existence of the Soviet Republic side by side with the imperialist states for a long time is unthinkable. In the end either one or the other will conquer. And until that end comes, a series of most terrible collisions between the Soviet Republic and the bourgeois states is inevitable."

Ringing the death knell for our ideology, they scream:

"As long as Capitalism and Socialism exist side by side, we cannot live in peace. One or the other will finally triumph. One will hold the funeral oration for either the Soviet Republic or World Capitalism."

How can anyone, after reading the words of these official representatives of the Communist Party, doubt their aims toward our society — toward the ideals and institutions we guard? Everything they say contradicts our basic beliefs about life, liberty and property.

Indeed there can be *no compromise* in the league with these agents of doom who, since the birth of their party, consistently have preached our destruction.

Just to make sure I remember why I went to Korea, I've written down these thoughts. I wanted to keep some facts straight.

How about you? USMC

ED: *For those interested in a further study of this, the quoted material was taken from Wm. Z. Foster's Toward a Soviet America, Ed. A. Walsh's The Ideology of Communism, and the State Dept. Pub. 4264, The Kremlin Speaks.*



Into the Rough

A MEMBER OF THE STAFF OF THE 1STMARDIV was conducting a tactical inspection of the 1stReconBn. The battalion was conducting a zone reconnaissance problem, which necessitated the company CPs and OPs to be some distance apart.

One of the areas of interest was communications, particularly the capabilities and limitations of the AN/GRC-9 radio in this type of operation.

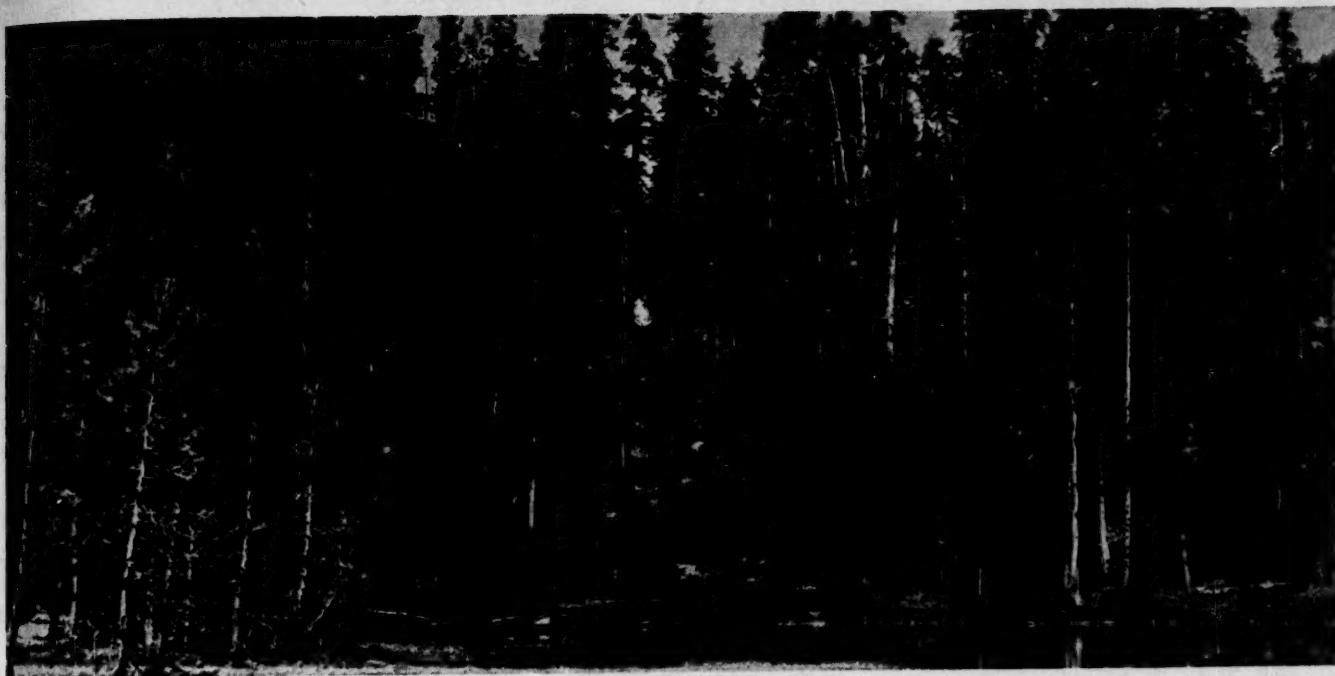
At a certain company CP the inspecting officer recognized the company commander as an ardent golfer. This was borne out by the fact that he was carrying the shaft of a golf club—a new type field swagger stick, perhaps.

The inspection was almost completed when the question was asked, "How's your '9' working?"

The company commander replied, "Well sir, I've sure been slicing a lot of shots lately. I don't know. . . ."

LtCol H. C. Parks

Marine Corps Gazette • February 1959



when you can't see the forest for the trees



NOW THE COMPANY COMMANDER can see the *complete* tactical picture. Giving him a view point from the air, the Hughes YHO-2HU — for the first time — makes it practical for him to have this vital combat advantage.

The YHO-2HU is the first low-cost, fully reliable, easily maintainable, high performance helicopter available for the

2-place observation and liaison mission.

With its time-proven Lycoming piston engine, the YHO-2HU flies at 85 m.p.h. speeds, with a range of 150 miles. This speed plus its hedge-hopping ability and extremely small silhouette reduce the hazards of enemy fire. Its small size and light weight makes it easy to land, park and conceal.

Major components, such as the engine, rotor systems and multiple belt drive clutch can quickly be removed as independent assemblies. No special tools are required for any or all field maintenance operations.

For an illustrated, detailed brochure describing the YHO-2HU, please write to the following address:

HUGHES TOOL COMPANY
AIRCRAFT DIVISION
CULVER CITY, CALIFORNIA



Decorations and Awards



COMMENDATION RIBBON With Metal Pendant

CAPT TERENCE M. ALLEN
2d Bn, 2d Marines
Lebanon, 15 July-15 Aug 1958

* * *

CAPT THOMAS E. BULGER
2d Bn, 2d Marines
Lebanon, 15 July-15 Aug 1958

* * *

CAPT DUNCAN D. CHAPLIN III
1st Bn, 8th Marines
Lebanon, 18 July-7 Sept 1958

* * *

CAPT RONALD P. DUNWELL
1st Bn, 8th Marines
Lebanon, 18 July-15 Sept 1958

* * *

CAPT WILLIAM R. HUTCHISSON
1st Bn, 8th Marines
Lebanon, 18 July-15 Sept 1958

* * *

CAPT GERALD H. HYNDMAN
2d Bn, 2d Marines
Lebanon, 15 July-15 Aug 1958

* * *

CAPT JAMES J. MCMONAGLE
1st Bn, 8th Marines
Lebanon, 18 July-15 Sept 1958

* * *

CAPT LESTER J. SADLER
2d Prov Mar For
Lebanon, 15 July-29 Sept 1958

* * *

CAPT GEORGE E. SHEPHERD
2d Bn, 2d Marines
Lebanon, 15 July-15 Aug 1958

* * *

CAPT RAYMOND D. STULTZ
2d Bn, 2d Marines
Lebanon, 15 July-15 Aug 1958

* * *

CAPT EUGENE H. TRECOTT
2d Prov Mar For
Lebanon, 27 July-13 Sept 1958

* * *

CAPT CLYDE A. TROWBRIDGE
1st Bn, 8th Marines
Lebanon, 18 July-15 Sept 1958

* * *

1STLT RALPH W. SALISBURY
2d Bn, 2d Marines
Lebanon, 15 July-15 Aug 1958

* * *

WO LAURIS W. JACKSON
2d Bn, 2d Marines
Lebanon, 15 July-15 Aug 1958

* * *

MSGT JESSE BLANTON
MCAS, Miami, Fla., 29 Apr 1958

* * *

MSGT WARREN T. ROUNTREE
2d Prov Mar For
Lebanon, 16 July-29 Sept 1958

* * *

TSGT SALVATORE P. ANGEROME
2d Bn, 2d Marines
Lebanon, 15 July-15 Aug 1958

* * *

TSGT RALPH E. BALLARD, JR.
1st Bn, 8th Marines
Lebanon, 18 July-15 Sept 1958

* * *

TSGT JAMES E. DAILEY
2d Bn, 2d Marines
Lebanon, 15 July-15 Aug 1958

* * *

TSGT BOSE L. MARTIN, JR.
MCAS, Kaneohe Bay, Hawaii, 5 Mar 1958

* * *

TSGT ALBERT J. PANGBURN, JR.
1st Bn, 8th Marines
Lebanon, 18 July-15 Sept 1958

* * *

TSGT GEORGE E. WORKMAN, JR.
2d Prov Mar For
Lebanon, 15 July-30 Sept 1958

* * *

SSGT TADEUS E. GARBOWSKI
American Land Forces
Specified Command, Middle East
Lebanon, 27 July-30 Sept 1958

* * *

SSGT JOHN J. WALTERS
Lebanon, 16, 17 July 1958

* * *

SGT PEDRO CABRIDO
MB, NS, Sangley Pt., Philippines
26 Jan 1958

* * *

SGT LESLIE E. PINNOW
MB, NS, Sangley Pt., Philippines
26 Jan 1958

* * *

PFC WALTER P. KUSH
2d Bn, 2d Marines
Lebanon

* * *

Voice of defense in the North



Philco Microwave supports Nike control network across Alaska

Unaffected by the most severe winter storms . . . unhampered by rugged terrain . . . impervious to electronic jamming . . . Philco Microwave has been selected by the U.S. Army Signal Office to link Nike sites on the Alaskan Defense perimeter.

Advanced Philco CLR-9 microwave equipment assures extremely reliable electronic communication between these isolated guided missile outposts. Because it provides a completely reliable, uninterrupted communications system in this frozen land, Philco Microwave has become America's "voice of defense in the North."

At Philco, the world of tomorrow is *now*. To meet the challenge of advanced electronics research and engineering, Philco is pioneering advanced communications systems such as that developed for the Alaskan Nike sites. And, at Philco, engineering opportunities are also expand-

ing—in the development of advanced communications systems, weapons systems and data processing.

Wherever you look at Philco; in guided missiles; in advanced navigation; in infra-red and radar technologies; as well as in communications systems . . . being "out front" is a habit.

In the wonder world of advanced electronics, look to the leader. Look ahead . . . and you'll choose Philco.

PHILCO.

GOVERNMENT & INDUSTRIAL DIVISION

4700 Wissahickon Ave., Philadelphia 44, Penna.

THE ATOMIC BOMB



By Dr. Louis Morton

Was the decision to use the atomic bomb militarily
justifiable? Did the bomb actually force
the Japanese to surrender?



B AND THE JAPANESE SURRENDER

THE HISTORIC DECISION BY THE British early in 1957 to cut their conventional military forces in favor of long-range missiles, equipped with atomic warheads, dramatizes one of the most significant problems of our time. No great nation, it seems, is economically able to maintain for long a full arsenal of conventional and atomic weapons and the forces and equipment required for both.

The British came to their decision slowly and after mature deliberation. They decided that they could not defend their home islands against nuclear attack. The only hope they

saw was the prospect of building up, with US aid, a capability of atomic retaliation that would serve to deter aggression.

Implicit in this decision was the assumption that the next war, if and when it came, would be nuclear. Thus, the forces that had fought with conventional weapons had become a luxury that the nation could no longer afford.

Perhaps no nation can afford to avoid this assumption. To ignore it might invite the disaster of atomic warfare. Yet to accept the assumption seems to lead just as inevitably

to the same disastrous consequences. For if the threat of atomic retaliation does not deter the aggressor, there is no recourse but to meet the challenge of nuclear warfare or to capitulate.

Here in a nutshell is the strategic dilemma of the nuclear age.

In arriving at their decision, which promises to have far-reaching effects, the British must have carefully studied the past. In the vast and uncharted jungle of nuclear strategy, a single landmark of atomic experience stands out as the one fixed point of reference. The use of an atomic





Dr. Morton received his PhD from Duke University in 1938. He is the author of 2 books and over 20 articles on military affairs. From 1943 to 1945 he was Historian, South Pacific Area, War Dept. In 1946, he was appointed Historian, Office of Chief of Military History, Dept of the Army, a post in which he is serving at the present time.

weapon has occurred only twice in history. Both times the US used an atomic bomb against Japan — like England an island empire, a nation poor in natural resources, and a country that must trade to survive. The historic precedent must have seemed terribly analogous.

For us in the US, knowledge of how the decision was reached to drop the atomic bomb in WWII and the effect of atomic attack on Japan, may perhaps provide a clearer insight into the strategic dilemma that hangs over the world in this age of nuclear energy.

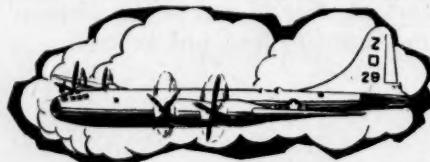
The use of the atomic bomb against Japan in WWII has been justified by the argument that this new weapon hastened the end of the war and thereby saved countless American and Japanese lives. Yet the decision to use the bomb has been questioned on the basis that it was unnecessary to initiate the horrors of atomic warfare because Japan was already defeated and on the verge of surrender.

Which is correct? What were the circumstances that brought about the decision to employ the atomic bomb against Japan? And what were the effects on the Japanese surrender of the employment of this new weapon that "blasted the web of history and, like the discovery of fire, severed past from present"?

Work on the atomic bomb in the US began in 1939, after a small group of scientists called the government's attention to the possibility that atomic energy might be used for military purposes and warned that the Germans were already in the midst of such experimentation. The program initiated in October of that year eventually became the two-billion dollar Manhattan Project, its purpose to produce ahead of the Germans an atomic bomb that could be carried by and dropped from an

airplane. None of the few persons privy to the highly secret effort doubted at the time that a bomb, if produced, would be employed if necessary.

Only a very few military planners on the highest level knew about the Manhattan Project. Advised late in the fall of 1944 that the bomb would perhaps be ready for testing by the following summer, they made two assumptions — 1) the bomb would work, and 2) it would be utilized. Since Germany seemed strategically defeated by the late summer of 1944, a list of tentative targets in Japan



was selected, and a B-29 squadron was instructed to begin training to deliver a new type bomb. On 30 December 1944, MajGen Leslie R. Groves, head of the Manhattan District, recommended that certain commanders in the Pacific be informed of the atomic project and the possibility that an atomic bomb might be used in that theater of operations.

Still, no one could definitely say when the bomb would be ready. Nor could anyone guarantee that it would work. Perhaps for these reasons and also because of the secrecy that shrouded the project, the possibility of using atomic weapons in the war never entered the formal strategic military planning. As Adm Leahy said, work on the atomic bomb was "the best kept secret of the entire war," even among members of the military establishment.

In March 1945, when it became possible to predict with some certainty that the bomb would be ready for testing in July, Secretary of War Henry L. Stimson discussed with President Roosevelt the probable military and diplomatic consequences

of using the new weapon. The President and the Secretary did not consider the question of whether the bomb ought to be used at all, and by inference, thus, left little doubt that the intent at this highest level of government was to use the bomb against Japan to help bring the war to an early end.

After President Roosevelt's death in April 1945, Secretary Stimson briefed President Truman on the atomic bomb. He outlined the history and status of the program and predicted that "within 4 months we shall in all probability have completed the most terrible weapon ever known in human history." As before, the top leaders of the nation were largely concerned with the political and diplomatic effects of employing the bomb rather than with the military aspects of its employment.

To consider such questions as the timing and manner of employment, the circumstances determining its use, and also the basic issue of whether it should be used at all, Stimson recommended and Truman approved the formation of a special group that became known as the Interim Committee.

After reviewing the development of the Manhattan Project, after listening to descriptions of the destructive power expected of the atomic bomb, after learning that there was no known defense against atomic attack, after visiting the engineers and industrialists who had designed and constructed the atomic plants at Oak Ridge and Hanford, and finally after discussing the problems at length (part of the discussion was whether use of the bomb might dissipate Russian intransigence in diplomatic matters), the Committee on 1 June submitted its report to the President.

The report recommended that the bomb be used: 1) against Japan as soon as possible, 2) against a military target, and 3) without prior warning of the nature of the weapon. As Mr. Stimson explained later, "to extract a genuine surrender from the Emperor and his military advisers, they must be administered a tremendous shock which would carry convincing proof of our power to destroy the empire. Such an effective shock would save many times the number of lives both American and Japanese that it would cost."

By this time, considerable reservations on the advisability of using the bomb had developed among the scientists who were working on the project. During the early years of the Manhattan District, the scientists had been primarily concerned with producing a bomb ahead of the Germans, an endeavor that might, it was thought, determine the outcome of the war. As the defeat of Germany began to seem increasingly assured and as success in the project appeared increasingly near, the few scientists who were cognizant of the entire effort and who appreciated the implications of using atomic energy in warfare became increasingly concerned about employing its destructive force.

This concern developed for the most part in the Metallurgical Laboratory at Chicago where, by early 1945, scientists were questioning explicitly the expediency of using the weapon they were trying so hard to build. It seemed as though they almost hoped that the bomb would not work. The "wave of horror and repulsion" that might follow an unannounced employment of atomic warfare, they felt, would more than outweigh the military advantages to be gained. They recommended, therefore, that the new weapon be demonstrated before representatives of all the United Nations on an uninhabited piece of land and that following this demonstration a preliminary ultimatum be issued to Japan. If Japan rejected the ultimatum and if American public opinion and the United Nations sanctioned using the bomb, then and only then, declared the scientists, should the use of the atomic bomb be considered.

These views were forwarded to Secretary Stimson on 11 June 1945. A petition signed by 64 scientists of the Chicago laboratory and sent directly to the President supported this position. At about the same time, a poll conducted among 150 scientists at the laboratory revealed that roughly two-thirds favored a preliminary demonstration, either on a military objective or on an uninhabited locality, while the remainder split between an all-out use and no use at all.

To consider these views and recommend a resolution of the technical questions raised, Secretary Stimson referred the matter to a panel of distinguished nuclear physicists. The panel consisted of Doctors Arthur H. Compton, Enrico Fermi, E. O. Lawrence, and J. Robert Oppenheimer. "We didn't know beans about the military situation," Oppenheimer later said. But the 2 main points considered in the discussion were "the saving of lives in the war and the effect of our actions on the stability of the post-war world." On 18 June, the panel reported, with regret, it seemed, that there was no practical way of ending the war by a technical demonstration, "no acceptable alternative to direct military use."

The reasons for this recommendation were several. No one yet knew whether the bomb would actually work. One bomb would be completed for testing in New Mexico in July; two others would become available for use by August. The ground test scheduled for New Mexico, even if it proved the success of the device, would not prove that a bomb dropped from an airplane would explode. "No one could be certain,"

Assistant Secretary of War John J. McCloy later said, "in spite of the assurances of the scientists, that the 'thing would go off.'" A warning or demonstration followed by a dud would, it was judged, have damaging repercussions on the war effort.

Thus by mid-June of 1945, after having considered and rejected arguments opposed to the employment of atomic power against Japan, the President's civilian advisers were united in their belief that the bomb should be used.

Insofar as can be determined, the President did not formally solicit the views of his military and naval chiefs, nor did the military and naval staffs offer them.

On the working levels, the military planners were going about their business as though the atomic project did not exist. Those few who knew about the Manhattan District regarded the development of an atomic bomb as too nebulous a possibility for it to be considered among the

hard facts involved in winning the war. Besides, the strategy planned and executed by mid-1945 had brought about a military situation distinctly favorable to the Allies.

The Germans had surrendered in May; the American troops in Europe would soon become available for redeployment to the Pacific. In that still active theater, Manila and Iwo Jima were in American hands, and the success of the Okinawa invasion was certain. Air and submarine attacks on Japanese shipping had virtually cut the homeland off from resources in the Indies; B-29's based on the Marianas were smashing Japanese cities and factories. The Pacific Fleet had virtually driven the Imperial Navy from the ocean, and planes of fast carrier forces were attacking Japanese naval bases in the Inland Sea. Clearly, Japan was defeated from a military point of view.

But Japanese defeat did not necessarily mean immediate Allied victory. The example of Germany was sufficiently recent to be impressive. Defeated, so it was thought, by the autumn of 1944, Germany continued to fight until the early summer of 1945. And so it seemed likely in the Pacific. Japan showed no signs of surrendering unconditionally, and Japanese troops had demonstrated convincingly that they could fight hard and inflict heavy casualties even in the face of hopeless odds.

Thus, to secure the unconditional surrender of Japan, the announced objective of the war and the basic premise of all strategic planning, the Allies proceeded on the assumption that an invasion of the Japanese home islands was necessary. The staunchest advocate of this line of action was the Army Chief of Staff, Gen Marshall, who maintained that any other course of action would involve unacceptable delay in the defeat of Japan.

Alternatives to this course of action had not yet been entirely discarded. The principal possibility envisaged seizing additional bases around Japan for the purpose of increasing the air bombardment of the home islands. This, when combined with a tight naval blockade, some thought, might produce the same eventual result — unconditional surrender — at less cost in lives. The senior naval officers, among them Ad-



mirals Leahy and King, held this point of view.

In contrast, Gen MacArthur voiced the necessity for invasion and argued for an assault landing on Kyushu (OLYMPIC) on 1 November 1945 and another on Honshu (CORONET) in March 1946. This, he declared, would permit the Allies to apply the full power of their combined ground, naval and air resources on the decisive objective, and would continue "the offensive methods which have proved so successful in Pacific campaigns." The inconclusiveness of the bomber offensive against Germany seemed to MacArthur convincing proof that bombing alone could not guarantee success. Seizing a ring of bases around Japan would only disperse Allied strength, and if positions on the China coast were included in this concept, lengthy operations on the Asiatic mainland might result.

The Joint Chiefs had officially accepted the necessity of invasion and on 25 May had issued a directive for the Kyushu assault. Yet it was tacitly understood that a final decision had still to be made by the President. After reviewing the strategy formulated against Japan, the Joint Chiefs on 18 June presented their recommendations to President Truman for his decision.

The President approved the program that called for: 1) air bombardment and blockade of Japan from bases in Okinawa, Iwo Jima, the Marianas and the Philippines; 2) invasion of Kyushu on 1 November 1945, with an intensified blockade and air bombardment; and 3) invasion of the industrial heart of Japan through the Tokyo plain in central Honshu on or about 1 March 1946.

Though defeating the enemy's armed forces in the Japanese homeland was judged a prerequisite to Japan's surrender, there was no assurance that Japanese forces elsewhere, and particularly those on the Asiatic mainland, would also capitulate. To provide for this contingency, and also to pin down these forces during the invasion of the home islands, the Joint Chiefs had long been convinced of the desirability of Russian entrance into the war against Japan.

From the beginning of the war,

American political and military authorities were of the opinion that Soviet operations in the Far East would shorten the conflict and lessen its cost. The prospect of a Russian troop commitment in the theater could be expected. For Stalin had promised—in October 1943, again in November of that year at the Teheran Conference, once again in October 1944, and once more in February 1945 at the Yalta Conference—that the USSR would participate in the war against Japan. The estimated date of entry was about 3 months after the defeat of Germany—some time in August.

But by the summer of 1945, though military planners still believed that Soviet intervention would materially shorten the war and thus save American lives, few responsible officials were eager for the Russians to enter the conflict. Nor were they willing to make concessions to secure Soviet entry into the war. With the military struggle in Europe at an end and Japan virtually defeated, Soviet participation in the Pacific war no



longer seemed indispensable. Yet after having urged Stalin for 3 years to declare war on Japan, the US government had no way of preventing a declaration of war if the Russians decided to make it. As Ambassador Harriman said, "Russia would come into the war regardless of what we might do."

Despite the political desirability of Soviet non-intervention in the Far East, Allied intelligence indicated that Soviet operations against Japan, if not altogether necessary to bring about a Japanese surrender, were still highly desirable for assuring a successful invasion of the homeland. Though Japanese industry had been seriously damaged by air bombardment and naval blockade, and though the Japanese armed forces were critically deficient in many war resources, Japan still had ample reserves of weapons and ammunition and an army of 5 million troops, 2 million of them in the home islands. Expecting the latter forces to resist invasion to the utmost, Allied intelligence sources estimated: 1) that neither blockade nor bombing would produce unconditional surrender and 2) that invasion, the necessary prerequisite to Japanese capitulation, would be prolonged and costly.

As the Allies saw the situation, the Japanese would continue to fight on, in the hope of avoiding complete defeat by obtaining somehow—as a result of Allied war-weariness or disunity or even by a miracle—a better bargaining position. The Japanese appeared to believe that unconditional surrender was equivalent to national extinction, and no signs indicated that they were ready to accept this fate. Hope of an early end to the war appeared only in the possibility that Japan might surrender at any moment if the conditions of surrender were softened to permit retention of the Emperor and the Imperial system.

Allied estimates were remarkably close to the truth. Tojo had been forced to resign after the Japanese defeat at Saipan, and since then the strength of the "peace party" had increased. The Swedish minister in Tokyo had been approached unofficially in September 1944 and again in March 1945 for assistance in putting out a feeler for peace. These overtures failed to achieve their purpose, but it became apparent that those who advocated peace in Japan regarded the Allied demand for unconditional surrender as the greatest obstacle to ending the war.

The Suzuki Cabinet that came to power in April 1945 understood that the Emperor wished to end the war as quickly as possible. Yet external crisis resulted in a worsened Japanese diplomatic position and prevented immediate fruition of this desire. First, the Soviet government announced that it had no intention of renewing its neutrality pact with Japan after 1946, and second, the Germans surrendered in May. These events, combined with the Allied invasion of Okinawa, made it clear to the advocates of peace inside Japan that if they were to find a way out of the war they would have to do so soon.

After lengthy discussions, the Japanese government decided to seek Soviet mediation as a means of terminating the war. The first effort, an approach on 3 June to Ambassador

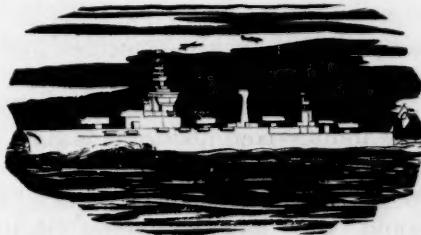
Jacob Malik, produced a noncommittal reply, as did a second overture later that month. At the end of June the Japanese finally approached the Soviet government directly through Ambassador Sato in Moscow. In a series of messages between Tokyo and Moscow (intercepted and decoded, incidentally, by the Americans), the Japanese Foreign Office instructed Sato to arrange for the reception of a special envoy from the Emperor who would have the power to make terms for Soviet mediation with the Allies. The main points to be made in talks with the Russians, he was told, were that unconditional surrender was altogether unacceptable and that the war should be ended quickly. Plainly, the Japanese had accepted defeat but not unconditional surrender.

The Russians, on one pretext or another, delayed answering the Japanese request, and in mid-July, when Stalin and Molotov left for Potsdam to meet with President Truman and Prime Minister Churchill (the latter replaced during the Conference by Clement Attlee), the Japanese attempt to end the war through the agency of Soviet mediation was still pending resolution.

American war leaders had also been considering how the war might be ended by diplomatic means. The chief obstacle, they recognized, was the announced war aim of unconditional surrender, a phrase that seemed likely to provoke the Japanese into a desperate and fatalistic campaign to the death. There was deep concern over the cost in men and material of the projected invasion, the political effects of Soviet intervention in the Far East, and the potential consequences of using the atomic bomb. Allied intelligence experts thought that the Japanese would end the war if softer terms were offered, and radio intercepts from Tokyo to Moscow bore them out. Army officials felt there was much to be gained from lightening the conditions of surrender, for such a course would reduce the cost of the war and make possible a settlement in the western Pacific "before too many of our Allies are committed there and have made substantial contributions towards the defeat of Japan" — a clear allusion to the Soviet Union. These goals, the War

Department believed, justified "any concessions which might be attractive to the Japanese, so long as our realistic aims for peace in the Pacific are not adversely affected." But the problem was to find a formula that would alter the substance, but not the form, of unconditional surrender, for so firmly rooted was this phrase in the public consciousness that its renunciation was certain to bring charges of appeasement. Americans, it seemed, had fallen victim to their own war propaganda.

Considerable discussion of this problem had been going on in Washington in the spring of 1945 among officials in the Department of State, War, and the Navy. The Acting Secretary of State, Joseph C. Grew, had proposed to the President late in May that a proclamation be issued to urge the Japanese to surrender and to assure them that they could keep the Emperor. Mr. Truman did not act on the suggestion though he



thought it a "sound idea," and he told Grew to discuss it with his cabinet colleagues and the Joint Chiefs. On 18 June, Grew reported that these groups favored the idea, but that they differed on the timing.

There the matter stood until Mr. Stimson, in a long and carefully thought out memorandum to the President on 2 July, reviewed and summarized the most informed military and political estimate of the situation. In Stimson's opinion, the most promising alternative to the long and costly struggle, sure to result from invading Japan, was to warn the Japanese "of what is to come" and give them an opportunity to surrender. Bereft of allies, her navy virtually destroyed, increasingly vulnerable to air attack and naval blockade, and facing powerful Allied forces with "inexhaustible and untouched industrial resources," Japan and her people might be susceptible to reason if properly approached. As Stimson pointed out, "Japan is not a nation composed of mad fanatics of an entirely different mentality

from ours. On the contrary, she has within the past century shown herself to possess extremely intelligent people." Any attempt, he added, "to exterminate her armies and her population by gunfire or other means will tend to produce a fusion of race solidarity and antipathy."

The timing of such a warning was most important, Stimson believed. It should come before the actual invasion, before destruction had driven the Japanese to "fanatical despair," and — if the Russians should enter the war — before the Soviet offensive had progressed too far.

Mr. Stimson also thought that the warning should emphasize the inevitability and completeness of the destruction that lay ahead and the determination of the Allies to strip Japan of her conquests and to destroy the influence of her military clique; it should leave no doubt in Japanese minds that they had to surrender unconditionally and submit to Allied occupation. Yet, while promising devastation, Stimson advised that the Allies should hold out for Japan, hope for the future. For this reason he wished to include with the warning a disavowal of any intention to destroy the nation or to occupy the country permanently. Once Japan's military clique was removed from power and her capacity to wage war destroyed, the Allies would withdraw their troops and resume normal trade with the new and peaceful Japanese government. "I personally think," Stimson wrote, "that if in saying this we should add that we do not exclude a constitutional monarchy under her present dynasty, it would substantially add to the chance of acceptance."

No mention was made of the atomic bomb. There was no need to do so. It was well understood by those who read Stimson's memorandum that the bomb was the instrument that would destroy Japan and impress on the Japanese government the hopelessness of any course but surrender.

President Truman approved the Stimson memorandum in principle, and the British, when asked, replied on 4 July that they had no objection to use of the atomic bomb against Japan. Thus the stage was set for giving the Japanese a final opportunity to surrender or risk destruction

by means of the unsuspected and as yet untried weapon. The terms and the timing of the warning still remained to be decided definitely. And positive proof that the bomb would work had still to be furnished.

This was the situation on the eve of the Potsdam Conference. The Allies had concluded that Japan would refuse to surrender unconditionally in the near future. The invasion strategy had been re-examined and confirmed and the assault date fixed. The desirability of Soviet intervention had been approved, and Russian entry into the war could be expected sometime during August. No firm decision had been made to use the atomic bomb, but the President's advisors favored employment of the weapon if the Japanese refused a final call to surrender.

On 16 July 1945, the atomic bomb was successfully test fired in a spectacular demonstration at Alamogordo, New Mexico. A day later the Potsdam Conference opened.

News in Potsdam that the atomic bomb was a reality brought great excitement among the few who were in on the secret. Instead of the prospect of long and bitter months of fighting the Japanese, there was now, according to Churchill, a vision "fair and bright indeed, it seemed, of the end of the whole war in one or two violent shocks."

President Truman at once called together his chief advisers — Byrnes, Stimson, Leahy, Marshall, King and Arnold — and asked whether they still advised using the bomb. The consensus was in the affirmative. But because no one could tell even yet what physical and psychological effects the bomb might produce, the decision to proceed with the military plans for the invasion of Japan remained in force. Use of the bomb, then, continued to be entirely divorced from the military planning.

The curtain that had shrouded the work on the atomic bomb was briefly drawn aside at Potsdam, but without visible effect. When Truman "casually" informed Stalin on 24 July that the Americans had a new weapon of "unusual destructive force," Stalin showed no special interest and said merely that he hoped the Americans would make "good use of it against the Japanese." Whether Stalin was pre-occupied at

the moment or simulating a lack of interest can only be a matter for conjecture.

Stalin told Truman and Churchill about the Japanese peace overtures, information already known. Churchill discussed this with Truman, and suggested cautiously that some offer might be made to Japan. But, as he later wrote, "Mr. Stimson, Gen Marshall, and the President were evidently searching their hearts, and we had no need to press them." Stalin also confirmed his intention to enter the war against Japan soon after 8 August, perhaps within 2 weeks of that date.

All that remained now was to warn Japan and present her with a final opportunity to surrender before use of the atomic bomb. Stimson's and Grew's views on the note to Japan were accepted, but apparently on the advice of former Secretary of State Cordell Hull it was decided to omit any reference to the Emperor. Hull's opinion, solicited by Byrnes before his departure for Potsdam, was that the proposal resembled appeasement and "seemed to guarantee continuance not only of the Emperor but also of the feudal privileges of a ruling caste." Should the Japanese reject this warning, declared the former Secretary, the proposal to retain the Imperial system could well encourage resistance in Japan and have "terrible political repercussions" in the US.

As a result, the final terms offered to Japan in the Potsdam Declaration of 26 July made no mention of the Emperor or the Imperial system. Nor did it contain any reference to the atomic bomb. It simply warned the Japanese of the consequences of continued resistance. Only those familiar with the weapon could have understood the references to inevitable and complete destruction as a warning of atomic warfare.

In Japan, receipt of the Potsdam Declaration led to frantic meetings among government officials, who finally decided not to reject the note but to await the results of the peace overtures made through the USSR. Yet the military insisted that some statement be made to the people, and on 28 July, Premier Suzuki told the press that Japan would ignore the Declaration. Though this state-

ment was alleged later to rest on a mistranslation, the Allies understood Suzuki's statement to mean rejection.

Interpreting the rejection as an indication that the military extremists still controlled the Japanese government, the Allies concluded that only a decisive act of violence could remove them from power. The instrument for such action, the atomic bomb, was available; events appeared to justify its use. But hoping that the Japanese might still change their minds, Truman postponed his final decision a few days more.

No further word came from Tokyo, for the Japanese were awaiting a reply from the Soviet government. This would not come until Stalin and Molotov returned from Potsdam on 6 August. When Foreign Minister Tojo wrote Ambassador Sato on 2 August, the day the Potsdam Conference closed, that he could not afford to lose a single day in his efforts to conclude arrangements with the Russians "to end the war before the assault on our mainland," President Truman had already decided to use the atomic bomb.

Preparations to drop the atomic bombs, produced and available thus far, had been under way for some time. The bomb components had gone by cruiser to Tinian in May, and the fissionable material had been sent by plane in July. The delivery aircraft, B-29's, and their crews were ready and trained, and the receipt of orders was awaited.

Upon Gen Arnold's insistence, the responsibility for selecting the particular targets and for fixing the exact time of delivery had been assigned to Gen Spaatz, who commanded the US Army Strategic Air Forces in the Pacific. He had received orders, approved by Stimson and Marshall and issued on 25 July, to the effect that he would drop the "first special bomb as soon as weather will permit visual bombing after about 3 August 1945 on one of the targets: Hiroshima, Kokura, Niigata, and Nagasaki." (He had been instructed to deliver a copy of this order personally to Gen MacArthur and Adm Nimitz.) Because of the need to drop the bomb by visual means, weather was a critical factor, and Spaatz delegated to his chief of staff, MajGen Curtis E. LeMay the task of deciding when the mission would be flown.

Though it might seem that President Truman had thus made his decision to use the atomic bomb by 25 July, he had only, he later explained, "set the military wheels in motion" in adequate time to ensure execution at the proper time. He could still change the order if the Japanese accepted the offer to surrender. When no further word came from Tokyo, the order to Spaatz was allowed to stand.

Because of bad weather, the "first special bomb" was not dropped on Hiroshima until 6 August. On the same day, a previously prepared release from Washington announced to the world that an atomic bomb had been used and warned the Japanese that unless they surrendered they could expect "a rain of ruin from the air, the like of which has never been seen on this earth."

In Moscow on 7 August, Ambassador Sato received word at last that Molotov would see him the following afternoon. Hopeful that he would receive a favorable reply to the Japanese request for Soviet mediation with the Allies to end the war, Sato arrived at the appointed hour at the Kremlin. There he was handed the Soviet declaration of war, effective 9 August.

In Japan, the bombing of Hiroshima had provoked consternation and confusion among the Japanese leaders, but had produced no disposition to surrender. News of the Soviet declaration of war, though not entirely unexpected, increased their dismay. The Russian action was a devastating blow to the militarists, for by removing all hope of Soviet mediation, it gave the peace advocates their first opportunity to come boldly out into the open. The militarists could and did minimize the effects of the bomb, but they could not evade the obvious consequences of Soviet intervention — the end of the possibility of dividing the Allies to secure softer peace terms. When Premier Suzuki arrived at the palace on the morning of 9 August, he was told that the Emperor believed that Japan's only course now was to accept the Potsdam Declaration.

Meanwhile, President Truman had authorized use of the second bomb — the last then available. Though the objective on 9 August was Kokura, the plane carrying the bomb

hit instead the secondary target, Nagasaki.

At this moment the Japanese leaders were meeting to discuss the Emperor's desire for peace. They were unable to come to agreement. Word of the bombing of Nagasaki still failed to resolve the issues between the military and those who advocated surrender. The Emperor then took the unprecedented step of calling an Imperial Conference, which lasted until 0300 the next morning. When this too resulted in an impasse, the Emperor broke all constitutional precedent and age-old tradition by speaking out boldly to tell his ministers that he wished the war brought to an end. This unique event resolved the crisis and that same day, 10 August, the Cabinet formally voted to accept the Potsdam Declaration provided that such action did not prejudice the position of the Emperor. Japan sued for peace.

Was the decision to use the atomic bomb militarily justifiable? Did the bomb actually force the Japanese to surrender?

These are hard questions, but they must be asked if we are to find in the past any guide to the great problems of our own day.

Clearly, the decision to use the atomic bomb against Japan was motivated by the desire to render unnecessary the invasion of the home islands, an effort expected to be prolonged and costly.

Yet some have said that the bombing of Hiroshima had a deeper purpose than the desire to end the war quickly. The real aim, they state, was the hope of forestalling Soviet intervention. In support, they point out that the bomb was dropped more than 3 months before the scheduled invasion of Kyushu and while the Japanese were trying to get out of the war. Since the military situation did not require this early use of the atomic bomb, the haste in employing the bomb, they argue, was designed to end the war before the Russians could enter it or at least before they could make more than a token contribution to victory over the Japanese. In this context, they conclude, dropping the bomb was successful, for the war ended with the US in complete control of Japan.

Although no first-hand evidence is available, the fact cannot be ignored that certain responsible officials feared the political consequences of Soviet intervention and hoped that ultimately it would prove unnecessary. This feeling may perhaps unconsciously have made the atomic bomb solution more attractive. For some officials believed that the bomb would serve as a deterrent to Soviet expansion in Europe, an expansion that had already engulfed Rumania, Bulgaria, Yugoslavia, Czechoslovakia and Hungary. According to one interviewer, Mr. Byrnes argued that the bomb was needed not to defeat Japan but rather to "make Russia more manageable in Europe."

Yet this theory fails to explain satisfactorily several matters. The exact date when the Soviet Union would declare war on Japan was not known; it was believed that it would occur within a week or two of 8 August. To forestall Soviet intervention in the Far East, the American government could have arranged to drop the atomic bombs immediately after the test firing at Alamogordo. The close timing between the drop on Hiroshima and the expected date of Soviet entry into the war left too little margin for error to make this course of action a deliberate one.

Furthermore, had the US desired above all else to keep the Russians out of the war, the government could have either responded to one of the several unofficial Japanese overtures, or made the Potsdam Declaration more attractive to Japan. The failure to set a time limit for Japan's acceptance of the Declaration suggests that speed in using the atomic bomb to forestall the Russians was not the predominant factor in American calculations.

Finally, the time of the bombing itself was delegated to Generals Spaatz and LeMay, and neither of them had any way of knowing Soviet intentions. Bad weather or any number of reasons could have delayed the atomic attack for a week or more.

But there is reason to believe that the Russians, toward the end, moved more quickly than they had intended. In conversations with Harry Hopkins in May 1945 and again at Potsdam, Stalin had implied that Soviet entry into the war against Japan would come after the end of negotia-

tions then being held with Chinese representatives who were in Moscow. These talks were still in progress on 8 August, when the Russians announced their declaration of war.

It has been implied also that the atomic bomb was employed to justify the expenditure of 2 billion dollars on the Manhattan Project. Questions had already been asked in Congress, and a full-scale investigation of the Manhattan District was certain to be ordered at the end of the war. What more striking vindication could be found than bringing about the end of the war in one or two sudden blows with this new and fantastically expensive weapon and thereby saving countless American lives? This explanation is so patently defamatory that not even one of the severest critics of the decision to use the bomb, P. M. S. Blackett, accepted it. "The wit of man," he wrote, "could hardly devise a theory of the dropping of the bomb, both more insulting to the American people, or more likely to lead to an energetically pursued Soviet defense policy." Furthermore, the need to justify huge expenditures could not, in and of itself, have brought about the decision for its use.

But one cannot deny the strong pressure to use the bomb once it had been produced. For how could those who had a weapon thought capable of ending the war in one stroke have justified withholding that weapon? Would they not have been open to criticism for failing to use every means at their disposal to defeat the enemy as quickly as possible and thereby save many American lives?

Oddly enough, even some of the scientists and others who were most reluctant to unleash atomic warfare found justification for the use of the bomb against Japan in their belief that the new weapon would ultimately prove the most effective deterrent to armed conflict ever produced. How better outlaw war forever than by demonstrating the tremendous destructive power of the weapon against an actual target?

It has been argued also that the final warning to Japan was not—and perhaps could not be in the circumstances of war—sufficiently specific. With demonstration of the awesome power of the bomb ruled out as impractical, the Japanese could learn

that the US had successfully produced an atomic bomb only by experiencing an atomic attack and thereby knowing empirically its destructive capacity. The only way the Japanese could have avoided the atomic attack they did not suspect, was to have surrendered, and this they were trying to do. That they sought to do so by securing the good offices of the Soviet government proved to be an error of first magnitude.

Did use of the atomic bomb, then, bring about the surrender of Japan? Continuation and intensification of the air bombardment and the surface and underwater blockade, some have said—and this despite the rejection by the Joint Chiefs of this course of action as being insufficient to bring about immediate surrender—would have produced the same result. Arguing after the war to justify the use of the atomic bomb, Mr. Stimson stated that conventional bombardment would have caused far greater destruction by 1 November 1945 (the scheduled date of the invasion of Kyushu) than that produced by the atomic bombs. Whether the psychological effect would have been as great is a conjectural matter.

Some of the influential planners, among them BGen George A. Lincoln, believed in the summer of 1945 that it would take not only the combination of bombardment and blockade together with invasion or the imminent threat of landing, but also Soviet entry into the war to force the capitulation of Japan. By this token, the atomic bomb had an impressive influence in bringing about Japan's capitulation.

But what finally forced the Japanese to surrender? Air bombardment, naval power, the atomic bomb, or the Soviet declaration of war? Gen Arnold claimed that air bombardment had brought Japan to the verge of collapse, and the US Strategic Bombing Survey concluded that Japan would have surrendered by the end of the year without use of the atomic bomb and without the projected invasion. Adm Nimitz believed firmly that the decisive factor in bringing Japan to capitulation was "the complete impunity with which the Pacific Fleet pounded Japan." Dr. Karl T. Compton asserted

that without the atomic bomb the war would have continued for many months longer. And MajGen Claire Chennault, wartime air commander in China, was of the opinion that Soviet entry into the war would have brought about the surrender of Japan "even if no atomic bombs had been dropped."

It would be a fruitless task to weigh the relative importance of these factors in the Japanese surrender. There is no doubt that Japan had been defeated in a military sense by the summer of 1945, and perhaps even earlier. But defeat did not mean capitulation, for the Japanese Army intended to fight on and had made elaborate preparations to defend the homeland. Whether air bombardment and naval blockade, plus the threat of invasion, would have brought about an early surrender and thus have averted the heavy losses almost certain to result from the actual landings on Japan, cannot be definitely answered. All that can be said is that without doubt they had a profound effect on the Japanese.

It is equally impossible to state categorically that the atomic bomb alone or Soviet intervention alone was the decisive factor in bringing the war to an end. The most that can be said is that Japan was obviously defeated in August 1945 and that the bombing of Hiroshima, the Soviet declaration of war, the bombing of Nagasaki, and the threat of still additional atomic bombs, all occurring in close sequence, created so extreme a crisis in Japan that the Emperor himself took matters into his own hands and ordered his ministers to surrender.

Whether any other set of circumstances would have produced surrender by that time is of course impossible to answer. And perhaps the answer is not important, for, after all, history does not repeat itself, and the situation that prevailed in August of 1945 is not likely to occur again. What is important for those who seek a way out of the great dilemma of our time is the understanding of the events and the forces that led to the decision and to the Japanese surrender that followed.

USMC

IS YOUR PRESTIGE SHOWING ?

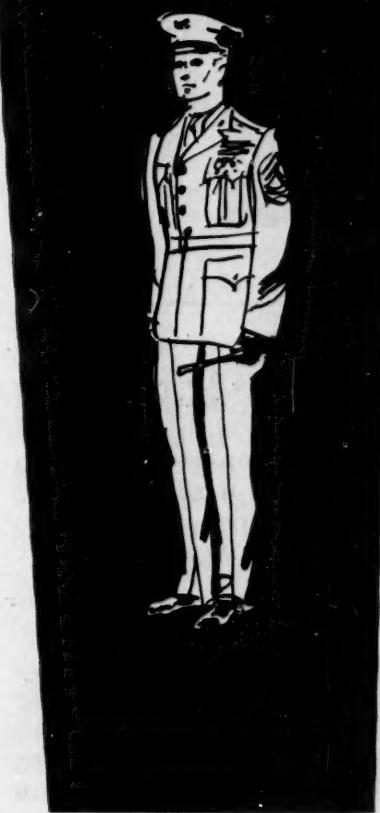
By A. L. Petry

FOR MANY YEARS NOW THE "PRESTIGE" of Staff NCOs has been a topic of the printed and spoken word the length and breadth of the Marine Corps.

In adding to that mass of utterances, what follows does not offer the sure-fire cure-all or the magic formula for restoring anything; neither does it propose to go—except briefly—into any of the many theories advanced about what has or has not happened to "prestige." Rather, it will examine the word, "prestige," itself as it may be applied to any walk of life; go behind the scenes to further define the words used to describe prestige; then provide a set of questions which the individual NCO (or any Marine for that matter) may use as an aid in evaluating himself.

In their discussions of the various aspects of prestige, Marines harken back to the man of the "Old Corps"; to his days before WWII and beyond. Then, they will remind you, staff chevrons were scarce as water holes in the Gobi desert, and when they were available you had to be good to get them. And certainly, no one among us will dispute the facts laid out in WWS I and II and again in Korea that this "backbone of the Corps"—this Marine's Marine who could do anything and do it better than anyone else—stacks up with the greatest fighting men in civilization's history.

His position was envious, but he earned it. He had the utmost respect and reverence of his officers. He was sharp. He was impeccable. He was good and he knew it.



But alas, his kind has been swept aside by the tide of progress. As the old country doctor has given way to the medical specialist and the all-around mechanic to the expert on brakes or engines or transmissions, so has the "Old Breed" given way to the specialist with the MOS. Fortunately for us who have followed him though, he has left behind his long-lingered shadow of skill and greatness, the thing we refer to as prestige.

Right here it might be well to observe that it speaks well, indeed, in this day of specialists, of the present state of mind of our Staff NCOs that they should want in the worst way to be restored to the position of this most worthy predecessor—that they should want prestige. But does it not follow that the "Old



A. L. Petry enlisted in the Marine Corps on 26 Dec 1941. While on active duty he served at: MCRD, San Diego, Calif.; Pearl Harbor, T.H.; Midway Island; Roi-Namur; Naval Disciplinary Barracks, Navy Yard, Philadelphia, Pa.; Camp Lejeune, N.C.; MCS, Quantico. He attended the University of Houston and Southern Methodist University, and has worked for United Press and The Houston Press. He wrote this article while serving in the Marine Corps as a MSgt.

"Gunny" must be emulated in deed and fact as well as in theory? And is it not true that even the specialist, skilled as he might be in a segment of his larger trade—in this case, being a Marine—must have the hard core of the basic knowledge of his business before he can excel?

This brings up another point: What has become of prestige? Many theories have been advanced about what has happened to it; many suggestions have been offered to recapture this elusive wraith which has plagued and bedeviled battalions, regiments, camps, posts and stations throughout the Corps; and many elements have been blamed for what senior NCOs feel has been a fall from the lofty heights of esteem their ranks once enjoyed.

WWII expansion was blamed. So was rapid promotion. So was inexperience. So was inefficiency. You could go on filling pages.

Some NCOs contend that they have been nothing but overpaid pfc's, that their authority has been taken away.

"But," said a recent Commandant, MCS, Quantico, "this is not true. If you will examine the warrants Staff NCOs receive today, you'll find they contain the same authority they contained 20 years ago."

The General, an announced and demonstrated champion of the NCO, believes that striving to become better Marines, assuming more responsibility, setting superior examples and making constructive corrections of juniors, will go a long way toward the restoration of the prestige which he feels has not been lost, but has merely "been allowed to slip through our fingers."

Now, what is prestige? A consensus of the best dictionaries available turns up this collective definition of a most discussed word: *Prestige*: reputation, influence or distinction based on what is known of one's abilities, achievements, opportunities, associations, rank or other circumstances.

Carrying the definition further, we can readily see that the many components of the word may also bear examining. About the first half of the definition the dictionaries say that, *Reputation* is: character commonly ascribed to a person or thing; estimation in which one is usually held. *Influence* is: power to affect others, derived from one's position or rank. *Distinction* is: a distinguishing quality or mark; special recognition given a person or group of persons, as for merit.

Of the second set of qualifications for prestige, the dictionaries say that, *Ability* is: the condition of being able mentally or physically; power or capacity to accomplish things; capacity, skill or competence. *Achievement* is: task or work carried to a successful end. *Opportunities* are: a favorable combination of circumstances for doing something; a suitable change. *Association* is: a union of persons in a society for some common purpose. *Rank* is: a grade of official standing; degree of dignity, eminence or excellence.

Applying these definitions as they pertain to Marines, we might say that our *reputation* is based on performance of 183 years of outstanding service; our *influence* is measured in the amount of good we are able to do for the Marine Corps through the proper execution of our

duties; and our *distinction* results in part from the reputation we have gained through the years.

Our ability is measured in the way we perform in a given situation; our achievements are the number of day-to-day tasks we perform well; our opportunities are all around us—in the field, in the office, in the classroom, in the public eye, in the examples we set for others; associations are what we make them; and rank needs no comment.

There are the ingredients; mix them all together and you wind up with prestige.

Now, finally, the questions which can be used in self-evaluation. All that is required to get this correct evaluation is a little energy and a lot of honesty.

Personal Appearance

- 1) Are you familiar with the contents of Chapter 49, MCM?
- 2) Do you ever need a haircut?
- 3) Do your shoes ever need shining?
- 4) Does your uniform ever need pressing?
- 5) Do you concern yourself with such things as the space between rows of ribbons, cleanliness of ribbons, whether the eagles on your buttons are up, position of hashmarks, fit of uniform, condition of uniform, etc.?
- 6) Do you, at any time, wear your uniform coat unbuttoned to be more comfortable?
- 7) When you are out in public in uniform, do you think of yourself as a representative of the Marine Corps and act accordingly?
- 8) Do you ever unbutton your shirt and loosen your tie when you're in uniform?
- 9) Despite your personal preferences, do you feel that because items of uniform are prescribed is reason enough for wearing them?
- 10) If you ever disagree with certain prescribed items of uniform, do you make written suggestions for changes as invited by Marine Corps directives?

Personal Conduct

- 1) Do you go on liberty with your juniors?
- 2) Do you "sky lark" with your juniors?
- 3) Do you drink with your juniors?

4) Do you discuss your personal affairs with your juniors?

5) Do you borrow money from your juniors?

6) Do you allow your juniors to address you familiarly by your last or nickname?

7) Do you discuss your seniors in the presence of your juniors?

8) Do you express dissatisfaction with the Marine Corps, its policies, regulations or directives in the presence of juniors?

9) Do you ever allow your juniors to dispute your orders or to argue with you?

10) Do you allow your lawful orders to go unexecuted?

11) Do you belittle your juniors in public?

12) Do you make yourself available to listen to the problems of your men?

13) Do you attempt to aid your men when they present reasonable requests or problems to which they attach importance?

14) Do you feel your men have confidence in you, your judgment, honesty, ability and position?

15) Do you show favoritism among your men?

16) Do you do your best to pass on knowledge?

17) Do you treat each of your men as an individual and try to handle him accordingly?

18) Do you ever threaten your men with punishment, office hours, etc., for something you *think* they may or may not do which would be in violation of the UCMJ?

Professional Attitude and Conduct

1) Do you feel "you got it made" now, so there's no use trying to learn any more?

2) Are you doing the kind of job you like, and the kind you feel you're best fitted for in the Marine Corps?

3) If the answer is "no" to 2 above, are you doing anything to change the situation?

4) When changes are made in drill, formations, regulations, policies, etc., by the Marine Corps, do you: a) Say, "What are they trying to pull on me now?" or do you, b) Figure there's a good reason for the change and try to learn all you can about it?

5) Do you make an effort every day to do something that will increase your value to the Marine Corps?

6) Do you have confidence in your ability to do your job?

7) In the past 5 years, have you attended any schools, taken Extension School courses, MCI courses, or in any other way attempted to increase your military and general knowledge?

8) Do you feel that your officers have confidence in your ability to get the job done?

9) When you don't know the answer, do you: a) Try to bluff your way through? or do you, b) Say, "I don't have the answer this minute, but I'll get it for you."

10) Is it "second nature" with you to practice the accepted military courtesies?

11) Do you feel it's your job to correct infractions of military regulations when you see them occur?

These are only a few of the hundreds of questions of this type we could all ask ourselves. No answers are needed to them; what they should be is obvious. Neither is a score required. A little thinking and considerable honesty with ourselves will show us how we stack up.

It hardly needs to be added that none of us are perfect, nor are we expected to be. Those before us weren't; those after us won't be. But collectively we hit an average—good, bad, fair or indifferent. It wasn't a lucky accident that the old-timers got where they did; they worked for and earned their places in the military sun.

Individually, we may be outstanding, fair, average or poor. But the ingredients for the prestige we want to regain—if it's really gone—are supplied from that poor-to-outstanding mixture—from the thousands of NCOs scattered throughout the world. Granted, external forces and outside influences have a bearing. But the category we come under, the place we will take in the military sun, is finally determined by the worth of our group, the place we choose for ourselves.

So where do you fit in? An honest appraisal will give you the answer. And after you get it, here is the big one, the final question. Is your prestige showing? USMC



Close Quarters

ONE OF THE LESSER KNOWN PROBLEMS of a drill instructor occurs when recruits from different platoons meet. Their first words are: "Where're you from?" If their homes are anywhere close to one another they spend time gossiping—wasting valuable time the DI has earmarked for other purposes. The first day a friend of mine picked up his platoon at Parris Island he gave them definite instructions as to their answer if they were asked that question.

It worked perfectly. A few weeks later the platoon was inspected by a newly arrived 2d Lt. While inspecting the first rank he asked a recruit, "Where are you from, lad?"

"Beaufort, sir," the recruit replied.

"Where do you live in Beaufort?"

"Right above the A&P Store, sir."

Five men down the rank he asked the same question: "Where are you from, lad?"

"Beaufort, sir."

"Where in Beaufort?"

"Right above the A&P Store, sir."

Sixty recruits and 45 minutes later the 2d Lt was walking away from the platoon mumbling to himself:

"Sixty-five of them, and they all live above the A&P Store in Beaufort."

ATSGT G. J. Kwiecien

COLD WEATHER TRAINING



HIGH IN THE SIERRA NEVADAS A "battle" that has been going on since November is being fought by 1st Division Marines.

Although gunfire is simulated, nothing is imaginary about terrain and situation at Pickel Meadows with temperatures hovering near zero. The site is the Corps' cold weather training center. There the Division trains its men in winter operations and survival at altitudes ranging from 6,500 to 11,000 feet.

A steady flow of parka and snowshoe-equipped Leathernecks take part in "Snowflexes" from November through March. They are taught: how to survive and fight in snow and cold; methods of providing shelter and heat; and care of clothing and equipment. In addition, they learn how to recognize and care for medical problems peculiar to cold weather, and conduct tactical operations emphasizing offensive tactics.

USMC



A 106mm Recoilless Rifle is mounted on sled runners



Marines carry snowshoes until reaching deep snow



Ontos moves through heavy drifts



Mechanical Mule hauls cold weather gear



2dLt Donald R. Huffman, honor graduate of the 2-58 Basic Class, is awarded the Marine Corps Association sword by LtGen M. B. Twining, Commandant Marine Corps Schools, Quantico, Va.



A graduate of Arkansas A&M, Lt Huffman entered the Marine Corps in July 1956 and received an appointment to the 21st OCC in December 1957. He has been assigned to the Infantry field and will report to Camp Pendleton, Calif., for further transfer to the 3d MarDiv.

The son of Mrs. Claudis B. Huffman of Rogers, Ark., Lt Huffman is a 3-time honor man, winning the distinction in Boot Camp, OCC and Basic School.

Navy and Marine Corps records are being uniformly classified under a new single standard filing system. HQMC put the system in effect 1 Jan. Marine operating forces are scheduled to make the transition by 1 January 1960.

Designed to modernize and simplify classification and filing of all Navy and Marine Corps documents, the new procedure provides several notable advantages. It allows better integration of records and correlation of information, quicker and easier accessibility to subject files, one single system to learn, and more rapid filing.

A nation-wide campaign to raise funds to build a memorial over the sunken battleship *USS Arizona* at Pearl Harbor is being conducted by the Fleet Reserve Association.

The Association hopes to raise \$500,000 through the sale of authentic scale model kits of the historic vessel. James B. Roark, National Chairman of the Association's memorial committee, said kits will be sent prepaid to persons who contribute \$2.00 or more. The kits are available by writing to *USS Arizona*, FRA, Box 16, Phoenix, Ariz.

Precision tracking ability of the Army's new "Overland Train" is illustrated as a model maneuvers curve and embankment at the same time. It features all-wheel drive for the 52 wheels which mount 10-foot tires 4 feet wide.



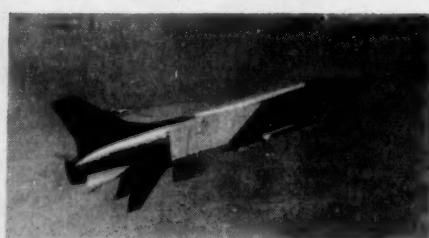
The 450-foot-long, 12-unit train is designed to transport heavy cargo in Arctic regions and in other remote areas lacking land transportation facilities. The unit is being designed and constructed by R. G. LeTourneau, Inc.

The first permanent Marine Aviation Detachment afloat has been activated aboard the carrier *USS Boxer*. The detachment of 4 officers and 100 enlisted Marines provides supply, maintenance and flight deck control to Marine helicopter squadrons and troops aboard the converted Amphibious Assault Ship. In its converted role, the *Boxer* is capable of transporting large numbers of helicopters and combat-equipped Marines.

Developed through the joint efforts of the Army and Navy, the *LtCol John U. D. Page*, a 338-foot amphibious resupply vessel, will join the marine fleet of the Army Transportation Corps.



The shallow-draft cargo vessel was developed for accelerating military "over-the-beach" supply operations.



Incorporated within the fighter's structure is an automatic flight control system which simplifies maneuvering. Ventral fins, positioned near the tail, are extended horizontally in low-speed flight and are turned downward to give more stability at high speed.

A mobile radar system designed to help protect the foot soldier from his most deadly enemy — mortar fire — is currently being produced in quantity by General Electric Company.

The trailer-mounted system is capable of pinpointing the location of enemy mortars more than 6 miles away. It detects the mortar shell in flight and computes the exact location of enemy mortar crews, permitting immediate and accurate counterfire.

Your fellow officers cordially invite you to share the benefits of membership in the

NAVY FEDERAL CREDIT UNION

Marine and Navy Officers all over the world own the NFCU. (It is their "private membership" organization for savings and loans.) When you join, you become one of the owners and you enjoy NFCU's worldwide financial services.

LOWER COST LOANS—Borrow anywhere in the world . . . and you pay no more than a penny a month interest for each dollar you owe! Borrow from your own organization, where loans are issued in a friendly, confidential manner.

WORLD-WIDE SAVING CONVENIENCE. You can add to your shares by mail from anywhere in the world. Officers are urged to use the Class "E" allotment plan that automatically puts the amount you specify into your savings account each payday.

NAVY FEDERAL CREDIT UNION

NAVY DEPARTMENT

Washington 25, D. C.

— THE NAVY FEDERAL CREDIT UNION —

Room IN33 MAIN NAVY, Washington 25, D. C.

I would like further information on the following services:

Savings Personal Loans Auto Loans

Name

Address

Rank Branch of Service Serv. No.

Membership limited to Commissioned and Warrant Officers, Navy and Marine Corps.

MCG-2-59

— THE NAVY FEDERAL CREDIT UNION —

Room IN33 MAIN NAVY, Washington 25, D. C.

I would like further information on the following services:

Savings Personal Loans Auto Loans

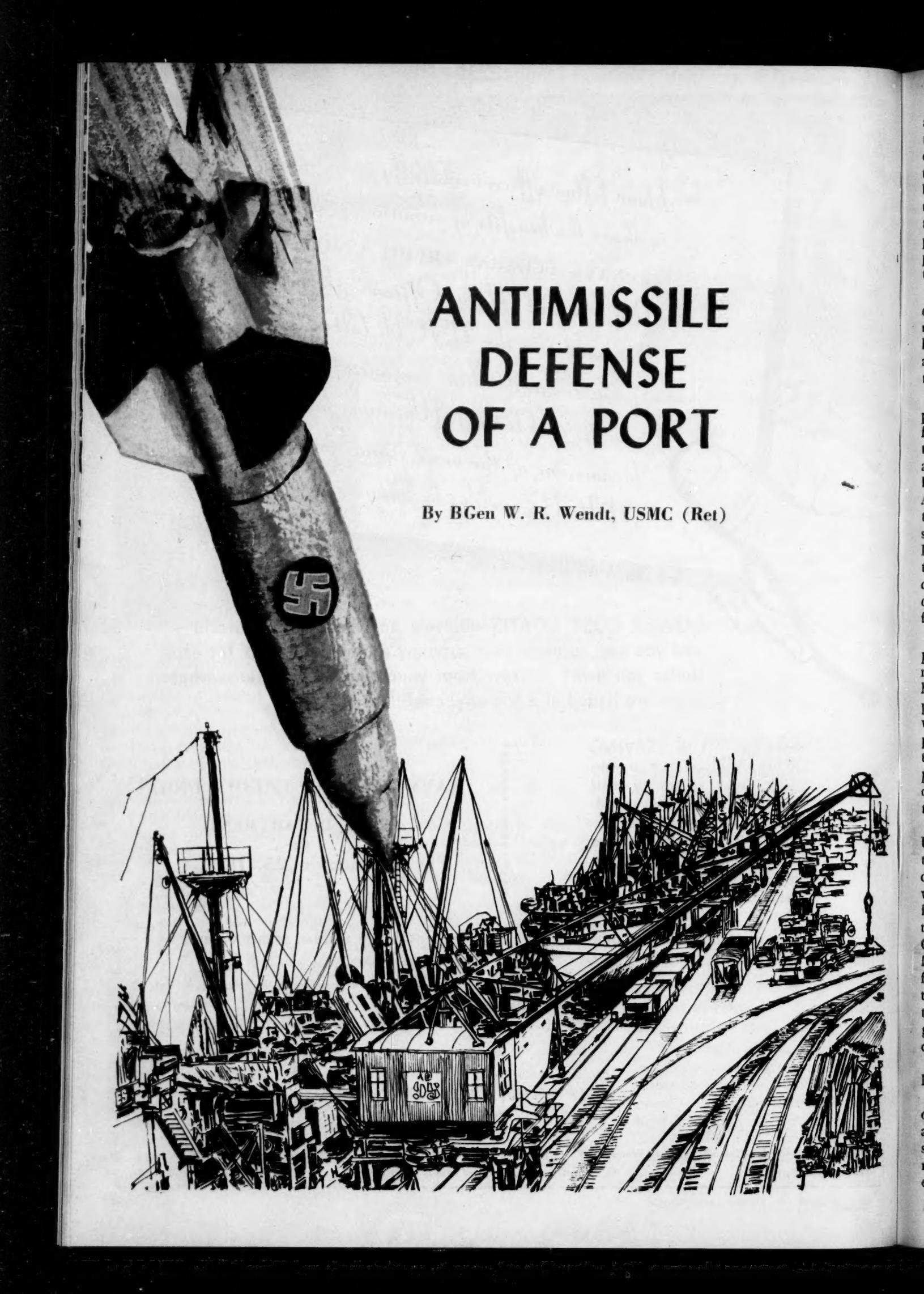
Name

Address

Rank Branch of Service Serv. No.

Membership limited to Commissioned and Warrant Officers, Navy and Marine Corps.

MCG-2-59



ANTIMISSILE DEFENSE OF A PORT

By BGen W. R. Wendt, USMC (Ret)

THERE IS GENERAL AGREEMENT, at least among students of history, that coming events cast their shadows before. The unique defense of the Port of Antwerp against flying bombs during WWII affords an intriguing illustration of a comparatively little-known historic event, of particular naval interest, that might possibly foreshadow similar events in the future.

Why should the history of the successful air defense of Antwerp be of naval interest? The lessons it lays bare are discernibly both repetitious and new; detached or assembled, they literally cover the waterfront.

This history must begin at some point of time during WWII—the fall of 1944 will suffice. Following the earlier Normandy landings, by air and over the famed invasion beaches of Utah and Omaha, the Allied Armies had broken out of their mighty beachhead and had succeeded in pushing their front lines more than 500 miles inland. In the process, hundreds of miles of coastline on the continent had been captured including many formerly fine ports.

Unfortunately for the Allies or perhaps fortunately for the Germans, suicide forces or demolitions had reduced the cargo handling capacity of many of these ports. There was no one port or combination of ports with sufficient residual capacity to handle the vast tonnage of supplies needed to permit the Allies to continue their advance much farther.

The artificial beachhead ports of Utah and Omaha, now far behind the front lines, faced problematical destruction during the oncoming winter storms. It became necessary for the service forces of the Allies to truck supplies principally from Cherbourg and Marseilles to the front lines over 500 miles away. The famed Red Ball Highway sprung into being as an expedient. Round trips in excess of 1,000 miles soon began to take their toll of trucks and drivers.

Was there any solution to the Allies' problem?

The Port of Antwerp seemed to offer such a solution. Antwerp, it appeared, might shorten existing supply routes by as much as 400 miles. But, Antwerp was still in enemy hands! Even if captured ex-



200 V-1s were produced daily at this old mine in France

peditiously, would it be usable?

Field Marshal Montgomery settled the issue. On 4 September 1944 Montgomery's forces, following a lightning-like 110-mile drive (executed within a brief period of 8 hours), succeeded in capturing Antwerp virtually intact.

Almost immediately the 8 mile circle that encompassed Antwerp's dock area with its 30 miles of wharves, 632 operating hoists, 186 acres of covered shed space, and over 100,000,000 gallon oil storage capacity, became of vital concern to both sides. Antwerp, the largest port on the continent, capable of handling 90,000 tons of freight a day, nearer the fighting front than any other usable port, and in operational condition, seemed to provide the answer to the Allies' supply problem. The significance of the loss of Antwerp to the German General Staff soon became evident indirectly. Allied intelligence officers shortly commenced to report frenzied build-

ing activities in numerous wooded areas east and southeast of Antwerp. Subsequent intelligence indicated these building activities were actually related to the construction of launching sites for Hitler's vaunted Vengeance Weapon Number One: the V-1 flying bomb or buzz-bomb. Clearly it would be used to deny the use of the Port of Antwerp to the Allies.

The details of the V-1 were not unknown to the Allies. Mr. Duncan Sandys, while assigned to the V-1 defense of London, had reported to Parliament that the V-1 was simply a missile that had proven "8 times harder to kill than an ordinary plane flying the same course." In point of fact, the V-1 was smaller than the smallest fighter aircraft, having only a 17.5 foot wing spread. It was considered relatively fast, attaining speeds of 450 mph. Moreover, it had proven to be fairly durable, being of steel construction and having relatively few vulnerable



BGen Wendt's list of duty stations and assignments during his 22 years of military service ranges from Iceland to the Pacific, and Embassy duty in China to the Office of Naval Intelligence in the Pentagon. Commissioned in the Marine Corps in 1935, he attended Basic School; Artillery School; Primary, Intermediate and Operational flying schools; and the Armed Forces Staff College. During WWII he was with the 4th MarDiv. After retiring in 1955 he became Engineer Assistant to the Director of the Applied Physics Laboratory at Johns Hopkins University.



Port of Antwerp shortened Allied supply lines by as much as 400 miles



Rain of destruction began at 0400 on 24 October 1944

parts. Mr. Sandys might have added that a defense of sorts against the V-1 had been devised, *but that there was no defense against its successor, the ballistic V-2 missile.*

On receipt of this intelligence as to the activities and aims of the Germans relative to Antwerp, the Allies began, just as secretly, to prepare for the anti-missile defense of the Port. *Since there was no defense against the V-2's, preparations were concentrated upon defending against the*



*BGen Armstrong commanded
Port's defenders*

V-1's. These preparations were hastened by intelligence estimates that predicted the V-1 attack on Antwerp might commence about 23 October 1944. Organized quickly and secretly, Antwerp X, a command that eventually included 22,000 of the world's finest British, Polish and American antimissile artillerymen, was assembled under BGen Clare H. Armstrong, U. S. Army.

Initially American and British AA units of Antwerp X were deployed in a single defensive belt between Antwerp and the indicated threat to the south and east. Allied intelligence reported launching sites being constructed between Coblenz and Bocholt but it was not known which of these sites would become operational first. The AA units of Antwerp X were ordered to dig in, utilize camouflage, and hold fire until the inevitable V-1's began to arrive.

Intelligence estimates proved accurate to within 24 hours. At 0400 on 24 October 1944 the first V-1 aimed at the vital dock area buzzed towards Antwerp. It marked the first of more than 5,000 V-1's that were launched against Antwerp in the next 154 days in the German's efforts to deny the port to the Allies. The first guns of Antwerp X went into action immediately.

In general, the first attacks de-



Rescue squads work amidst buzz-bomb damage

veloped from the direction of Trier, and defenses had to be shifted slightly to meet the threat. As available, automatic weapons were deployed in front of the single gun belt established.

By 10 November 1944 all British units with the exception of one Searchlight Regiment were withdrawn, leaving Antwerp X with 7

American gun battalions and 2 automatic weapons battalions. Collaterally, 5 additional gun battalions and one additional automatic weapons battalion were ordered to reinforce Antwerp X.

As Field Marshal von Rundstedt's offensive gained momentum, 5 gun battalions and 2 automatic weapons battalions, had to be withdrawn and rushed to Liege, where they were employed both as AA and field artillery. Antwerp X continued to defend despite loss of these units, as the battle of the buzz-bomb increased in intensity. From 2 directions, both night and day, death and destruction rode the skies towards Antwerp.

Two British regiments arrived to augment Antwerp X so that by 20 December 1944 the Command was prepared to defend from 3 different directions.

Then, on New Year's day, the Luftwaffe attacked Antwerp in some strength losing 11 aircraft to the guns of Antwerp X.

By 11 January 1945 the Battle of the Bulge had been won, and the units deployed to Liege had rejoined. At this point the V-1 attacks from the northeast suddenly increased and Antwerp X defenses had to be shifted accordingly. As the V-1 attacks gradually became channelized, the depth of the defenses was



Remains of unexploded buzz-bomb



Belgian civilians search for bodies at site of V-2 bomb explosion



Montgomery directed lightning drive to take vital port

increased. The number of V-1 kills climbed as the defenders gained experience with the V-1's; however, so did the number of buzz-bombs being launched.

In the waning days of January 1945, the V-1 assaults aimed at Antwerp were abruptly augmented by many launchings from due north and at relatively short ranges. These marked the third and final major direction of attack. The dramatically shorter ranges caused apprehension that a greater percentage of the V-1's would now be able to reach all parts of Antwerp. The Battalions of Antwerp X were once again shifted to meet the new threat. A complication arose immediately. An Allied airfield, B-79, one of the largest being constructed on the Continent, was located in the northern defense sector, limiting gun deployment and restricting AA fire. As the V-1 attacks from the north continued to increase, the airfield had to be relocated; the guns of Antwerp X were

shifted accordingly and fire restrictions removed.

In the ensuing month of February, 1945, the V-1 attacks on Antwerp reached their peak. In one day 160 V-1's were launched from 3 different directions, mainly from the north. Units defending the southeast approaches were redeployed to reinforce the northern sector. All approaches were steadily increased in depth. It was at this time the tide of battle shifted dramatically in favor of the defenders. There came a string of 6 days when the guns of Antwerp X knocked down 89 of 91 V-1's for a score of 97.8 per cent. The crisis had been passed; a victory without territorial gains had been won.

The cost?

All-in-all, what amounted to a Division of men, i.e. 22,000 British, Polish and American, were employed in Antwerp's defense over a 5 month period. The defenders utilized 208 90mm heavy American guns; 128 3.7inch heavy British guns; 96 American light 40 mm guns; 60 British and 32 Polish Bofors. Additionally, the 42d Searchlight Regiment, British, employing 72 searchlights, illuminated all V-1's that encountered the defenses at night and in low visibility. To these costs might be added three million sandbags



rimming the freezing, bottomless, mud holes of the low countries that provided the gun pits for Antwerp X. Some 6,000 miles of communication wire paralleled by radio link were utilized. Half a million rounds of heavy ammunition were fired, accounting for 3 and 4 sets of gun tubes shot through per battery of the defenders. Some 32 of Antwerp's defenders were killed; 298 wounded.

The results?

Of 2,394 V-1's actually determined to have posed a threat to Antwerp, 648 were destroyed harmlessly in mid-air; a majority of 1,535 were caused to crash in open fields short of the vital target. The balance, unaccounted for, represents the 211 V-1's that ultimately fell in the vital area. Supporting Mr. Sandys' words to Parliament that the V-1 was "eight times harder to kill than an ordinary plane flying the same course," of the 211 — 156 of these

V-1's successfully penetrated the Antwerp X defenses. Some 36 additional buzz-bombs could be accounted for as those delivered from a new direction before the defenses were shifted. Seventeen other V-1's were detected but not hit for various reasons such as intervening rain or friendly fire or because friendly aircraft would be endangered. Finally, two V-1's got through because they were above safety-of-flight altitude ceilings imposed. It is noteworthy that only a few V-2's were employed throughout the 154 day attack by air. These ballistic missiles either landed in or near the City of Antwerp, *there being no defense against them*.

Had there been no air defense of Antwerp X, an aggregate of 2.5 KT of high explosive might have been distributed throughout the vital target area. In such an eventuality, it is unlikely the port authorities would have been able to report, as they did, that not one day's work in handling high-priority cargo had been lost because of enemy interdiction. On the positive side, this lack of interruption had enabled the port to handle 3,000,000 tons of supplies despite 154 days and nights of air attack. This total tonnage met the needs of 6 complete Field Armies, viz: The Canadian First, British Second, and American First, Third, Ninth and Fifteenth. They were enabled to mount their final blow across the Rhine that culminated in the defeat of Hitler's war machine.

British MajGen Revell-Smith evinced a comprehension of Antwerp X's contribution, when he addressed the Command in these words: "This is a great victory; perhaps not heralded or *understood* by the world at large in the same way as they would appreciate a victory by other arms. The victories of other arms have territorial gains to show. You have not, but nevertheless this does not make it less important than any other form of major military success on the final outcome of the war."

And the Commanding General of Antwerp X, referring to "this unparalleled anti-aircraft record" could certainly be pardoned when he defied contradiction in his farewell message, to say "the men of Antwerp X were and are 'the best damn gunners' in the world." 



Direct hit at Antwerp street intersection



STICK of the QUEEN



By AMSgt T. W. Elliott

IN THE MARINE CORPS SQUAD today the men are armed with M1 rifles and BAR's. The M1 is an excellent semi-automatic rifle which has been proved—by time, combat and experience—as much superior to any weapon of its type. But we are not fighting an enemy today nor will we fight an enemy in the future which allows us to have the advantage the M1 rifle gave us in WWII. Today and in the future the trend by our enemies is towards more automatic weapons.

While I was a rifle platoon sergeant in Korea one of my squad

leaders, who had set up an outpost in a perimeter defense in front of the MLR, told me the reason for one casualty he took on a particular night, was that both the enemy and the Marine discovered each other at the same time and they opened fire simultaneously. The Marine fired only one round from his M1 while the enemy fired about 20 rounds from his "burp gun." The enemy escaped safely while the Marine became a battle casualty. It was the opinion of the squad leader, and the men in his squad, that the enemy would have been killed had the Ma-

rine been armed with an automatic rifle. The reason the Marine fired only one shot was because that was all he could get off before he was hit.

Our enemy today realizes that if by maneuvering under the cover of darkness or heavy brush and concealment he can get within 30 yards of our riflemen, he can blow him out from behind his M1. This is a result of the extra fire power carried by the enemy's "Queen's Club"—his burp gun. If our present enemy can overcome the M1 rifle certainly other countries will be quick to fol-

low suit.

Most combat Marines agree that the M1 is no match for a burp gun if you limit the observation of the rifleman to 30 yards. Heavy brush and thickets can limit the vision to less than 30 yards in daylight, to 5 yards in darkness. Let's give the guy in the foxhole a fighting chance.

Some may say the BAR takes up the slack. Even so that's only one automatic weapon for 4 men. So only one in four has an even chance and that one is handicapped by the bulky weight (21 lbs) of his club.

Others say the Carbine M2 or the Thompson sub-machine gun was the answer. The carbine was an excellent close-in weapon. So was the sub-machine gun. But what happens if the terrain changes and our rifleman finds himself in country where he can see with the naked eye for 1,000 yards, or the enemy is 700 or 800 yards away?

Up to this point I have dealt only with defense. Look at the squad in offense. The rifleman is well covered by supporting arms up to within 200 yards of the enemy. Then supporting fires begin to lift. It was observed in Korea, by many Marines, that our enemy was so adept at digging fortifications and bunkers that artillery barrages and air strikes did not do the damage expected. As soon as the barrage or strike ended the enemy was observed moving around on his slopes and in his trenches. Any enemy knows that after a concentrated artillery barrage or an air strike there is a good chance for an attack, so he comes out of his bunkers and pill-boxes. Then it's our rifleman against his. The enemy machine guns and automatic rifles open up. If they don't pin our riflemen down, the riflemen will sustain casualties. If our rifleman had a light semi-automatic and automatic rifle, he could fire full automatic for the few moments that it takes to over-run the position. The riflemen could keep the enemy pinned down with automatic rifle fire; therefore sustain fewer casualties; have more men to over-run and consolidate the position. Possibly these casualties could be the difference between holding terrain taken, or exploiting the advantage gained.

The rifle squad in the attack is most vulnerable during the time from the over-running of the posi-

tion 'til the supporting machine guns and light mortars have displaced forward. This is the time when the squad has the least fire power to stop a counter-attack. This is when the enemy will counter-attack, if he can. Why not give the rifleman a dual purpose weapon that he can fire semi-automatically if the enemy is at long range and well dispersed, or full automatic if the enemy is closing and is going to overrun his position? The enemy strives to knock out the automatic weapons because they are most dangerous to him. If each man were armed with an all-purpose rifle, the enemy would be forced to knock out every rifleman in the squad in order to attain his goal.

In the pursuit by fire, the rifleman could deliver a large volume of fire on a retreating and disorganized enemy, thereby destroying the enemy before he has a chance to reach prepared positions, reorganize to defend these positions, or counter-attack. If the enemy is retreating and is well dispersed and at a long range, the Marine can shift to semi-automatic fire and deliver a small volume of well-aimed fire to destroy the enemy.

It will be argued that supply is too great a problem. The 2d Raider Battalion in WWII had a BAR, M1 and Thompson sub-machine gun for every 3 men in the rifle squad. Their supply problem did not in-

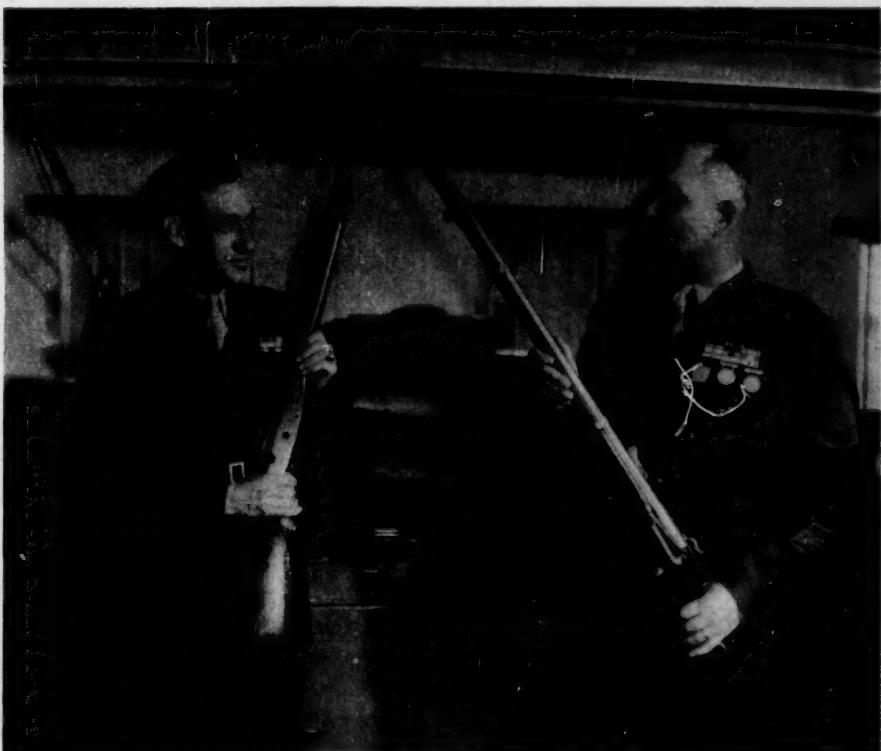
volve quantity, but types of ammunition. Reason: they were all well trained Marine rifle marksmen, and therefore had confidence in their weapons and themselves. They all were well-trained in fire discipline and fire control and only fired "automatic" when there were mass groups of enemy in front of them.

If we had only one all purpose rifle, we would need but one type of ammunition for the entire squad. Therefore we would ease the supply problem tremendously and make it easier to train a rifleman because he would have only one weapon to learn. The ordnance repairman would have only one set of spare parts to carry, instead of carrying spare parts for 3 or 4 weapons.

On the battlefield, if every man in the squad were armed with an all-purpose rifle, no one rifleman would have to pick up the weapon of another for the sole purpose of keeping the automatic weapon in action—he would have an automatic weapon in his hand. The rifleman could also use the ammunition of casualties by merely picking it up and inserting it in his own weapon. We would cut down the time it takes to train a rifleman and keep him and his weapon in action longer.

All purpose weapon, intelligent rifleman, result: unbeatable combination.

USMC



FORCE RECON - BY LAND

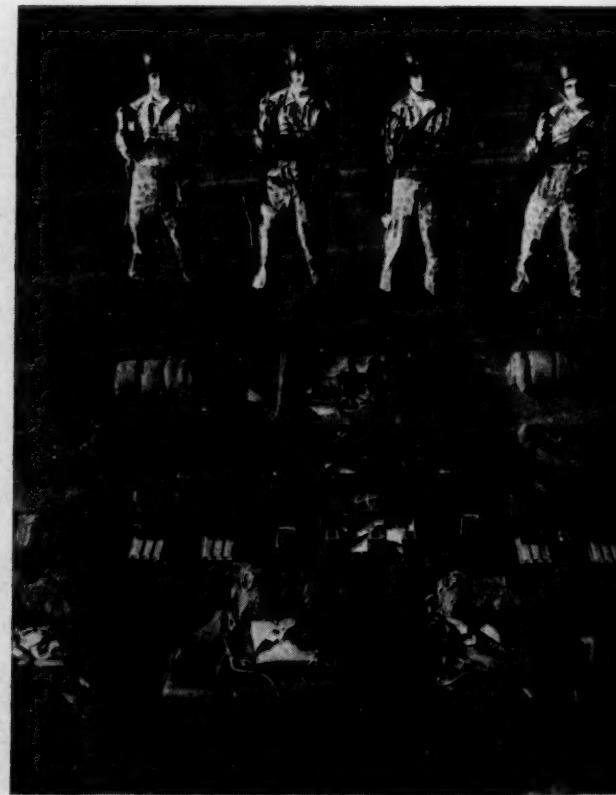
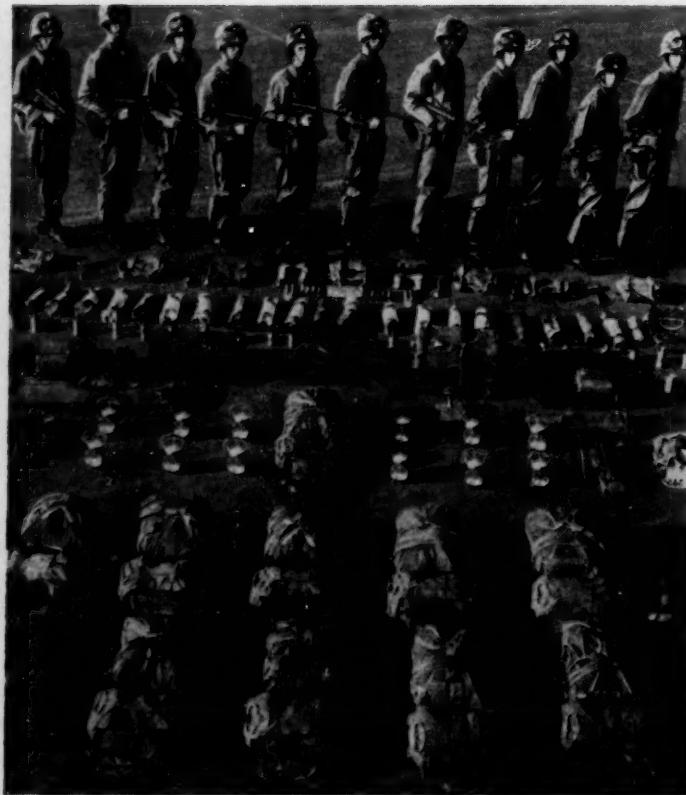


“THE JOB: REDUCE THE UNCERTAINTY.” So wrote BGen J. M. Masters, Sr. in the June 1958 *GAZETTE*. “Uncertainty is an ugly three-headed spook, which will haunt the commander. . . . The spook’s three heads? The enemy, the weather, and the terrain . . .”

To this statement of the Intelligence officer’s job we could add a job description: use available tools skillfully to strip the veils from the three-headed spook and provide the commander with the information he needs to make a sound decision. One

of the commander’s best tools, in my opinion, is the Force Reconnaissance Company. By well-conceived employment of this organization, many of the uncertainties can be reduced. Only when the commander has the best available information on the enemy, weather and terrain can he confidently order, “Launch Helicopters!” and “Land the Landing Force!”

Perhaps the greatest difference of opinion on modern amphibious tactics and techniques arises from: first, the debate as to whether or not nu-



LAND SEA AND AIR

by BGen H. Nickerson, Jr.

clear munitions will be used; and second, the size and degree of unit separation. No matter what size the separation unit is that lands by helicopter in the amphibious assault, we can all agree that the highest order of Intelligence is required for this unit to "stay loose," hit hard, then saddle up and move out rapidly—avoiding, all the while, the unproductive moment of nuclear weapon target size concentration. How, then, shall we succeed in unveiling the spook?

Within Force Troops, in both

FMFLant and FMFPac, we have the key to unlock a part of the Houdini apparatus — the Force Reconnaissance Company. The proper utilization of these highly skilled "eye balls" and "ear lobes" is the skeleton key to success in modern amphibious warfare.

The general missions of these companies are to support a Landing Force by: first, conducting a pre-assault and post-assault amphibious and parachute reconnaissance; and second, conducting pre-assault and post-assault parachute and other



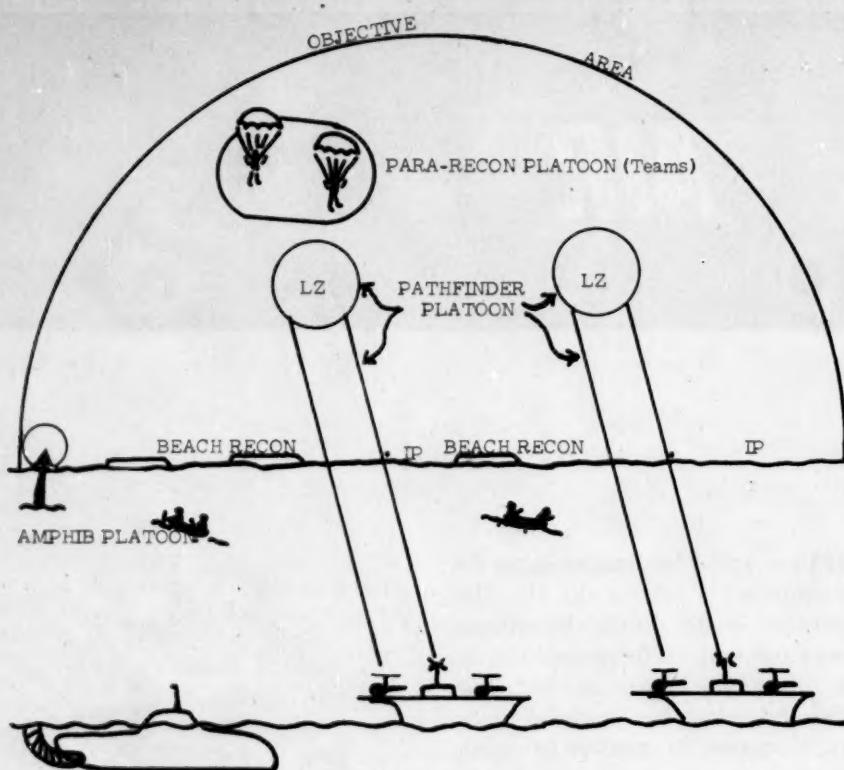


Fig. #1

pathfinding missions. (Fig. #1)

A Force Reconnaissance Company is a part of the task organization of the Landing Force and is employed to extend the ground reconnaissance capability of that force beyond the coverage afforded by the organic reconnaissance battalion of Marine Divisions. As noted in the mission, this is accomplished by pre-assault terrestrial reconnaissance using amphibious and parachute means. To conduct post-assault deep reconnaissance, helicopter lift and parachuting are used. The company employs helicopters to establish and displace deep observation posts for battlefield surveillance. The reconnaissance-surveillance portion of the Force Reconnaissance Company's mission must be closely monitored by the Landing Force G-2 to insure that all efforts are integrated into the overall Intelligence collection plan. Only by obtaining and using all available information can the Intelligence officer fit together the assorted pieces of the jigsaw puzzle and present the commander with a clear picture.

In addition, the Force Reconnaissance Company is employed to provide parachute pathfinder services in the approach and retirement lanes and helicopter landing zones, in amphibious and subsequent land operations. Pathfinder teams provide pre-

assault navigational assistance to helicopters in approach to and along approach-retirement lanes.

Pathfinder Teams provide terminal guidance to the helicopter assault waves in the landing zones, in either day or night operations. Final pre-H-hour reports of enemy activities, obstacles, weather and radiological contamination in the landing zones and near vicinity are made by these pathfinder teams. Pathfinders are capable of limited obstacle clearance, should this work be necessary, and they provide emergency communication support and assembly aid to the helicopter-landed troops.

The main tasks of a Force Reconnaissance Company, then, are: first, to perform pre-D-day reconnaissance as required by the overall Intelligence collection plan, using parachute and amphibious means; second, to provide pathfinder services. In order to do these jobs, the company is functionally organized to plan and execute—with the support of tactical and transport fixed-wing aircraft, helicopters and naval vessels—the following tactical missions: perform pre-D-day amphibious reconnaissance of any landing beaches required by the landing plan; establish coast watcher stations or inland observation posts after D-Day, if required; execute pre-D-day parachute reconnaissance of heli-

copter landing zones—of the approach and retirement lanes thereto—and of other key inland installations of interest to the Marine Expeditionary Force; conduct post-D-day reconnaissance, by helicopter or parachute, of critical areas beyond the range of Division reconnaissance means; and finally, render necessary parachute or pathfinder support to assault waves.

These varied tasks are accomplished by 14 officers and 147 enlisted, organized (as shown in Fig #2) into a Company Headquarters of 4 officers and 33 enlisted; a Parachute Reconnaissance Platoon of 3 officers and 23 enlisted; an Amphibious Reconnaissance Platoon of 2 officers and 23 enlisted. A Maj (0302) is in command. Twelve officers and ninety-seven enlisted Marines are on parachute jump status.

The company is capable of some organic supply functions: organizational 1st echelon maintenance of its gear, and 2d echelon organizational maintenance of electronics, motor transport and ordnance equipment. In garrison, it is authorized to conduct parachute maintenance and repair. Also in garrison, it is capable of maintaining and distributing a 30-day operational level of replenishment supplies and equipment, including 100 per cent replenishment of parachutes. In the field, it can maintain and distribute a 5-day level. Thus, this company requires aerial delivery support (including packaging) for delivery of supplies to deep observation posts and distant reconnaissance patrols or teams.

Now that we recognize the missions, tasks and organization of a Force Reconnaissance Company, let's take a specific example of its use in one of the major Division-Wing size amphibious exercises conducted this past year. We'll briefly outline the 1st Force Reconnaissance Company's part in **OPERATION STRONGBACK**, conducted during February and March 1958 in the Philippines. The employment of the 2d Force Reconnaissance Company in **PHIBEX 1-58**, conducted during March and April 1958 at Camp Lejeune, North Carolina, followed a somewhat different pattern. Omission of a narrative of this East Coast action is premeditated in the interest of stimulating letters to the Editor.

FORCE RECONNAISSANCE COMPANY

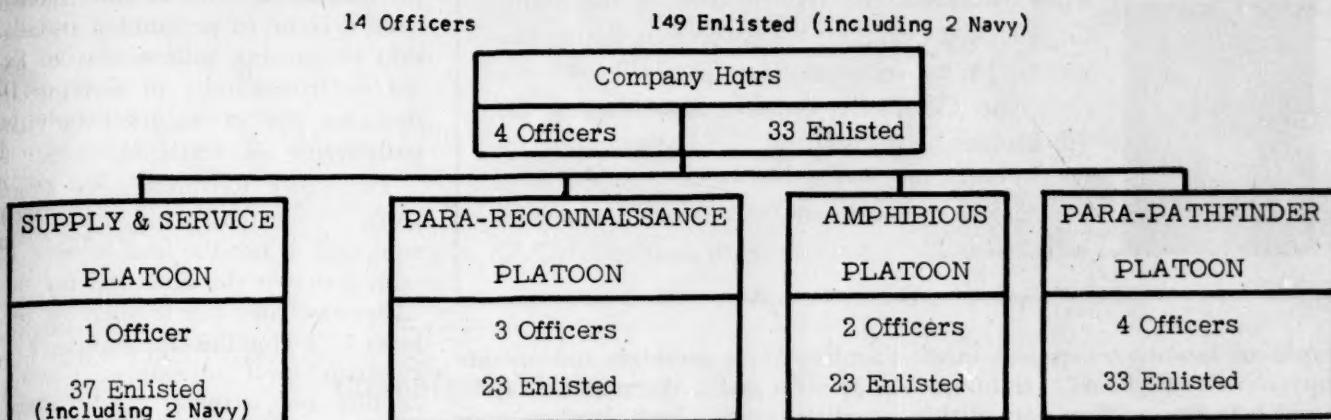


Fig. #2

First, the concept of OPERATION STRONGBACK called for a deep helicopter landing, with a surface assault and a subsequent joining of these forces. (Fig #3)

The Parachute Reconnaissance Platoon was retained at the Marine Expeditionary Force Level; the Amphibious Reconnaissance Platoon was employed with the Advance Force; and the Pathfinder Platoon was attached to the Helicopter Group, MAG-16. It should be noted here that in PHIBEX 1-58, no Advance Force was employed, and the pathfinders were not attached to the Helicopter Group.

Back to STRONGBACK: the plan as conceived and executed, supported the Intelligence collection effort effectively. Four of five parachute reconnaissance teams dropped into specific objectives from TF-1 aircraft on the nights of D-6 and D-5. A fifth team jumped from four F3D aircraft on the night of D-4. The first four had about 85 hours and the last one somewhat less to complete their assigned reconnaissance missions. All teams performed effectively in clarifying, confirming, amplifying and correcting previous Intelligence.

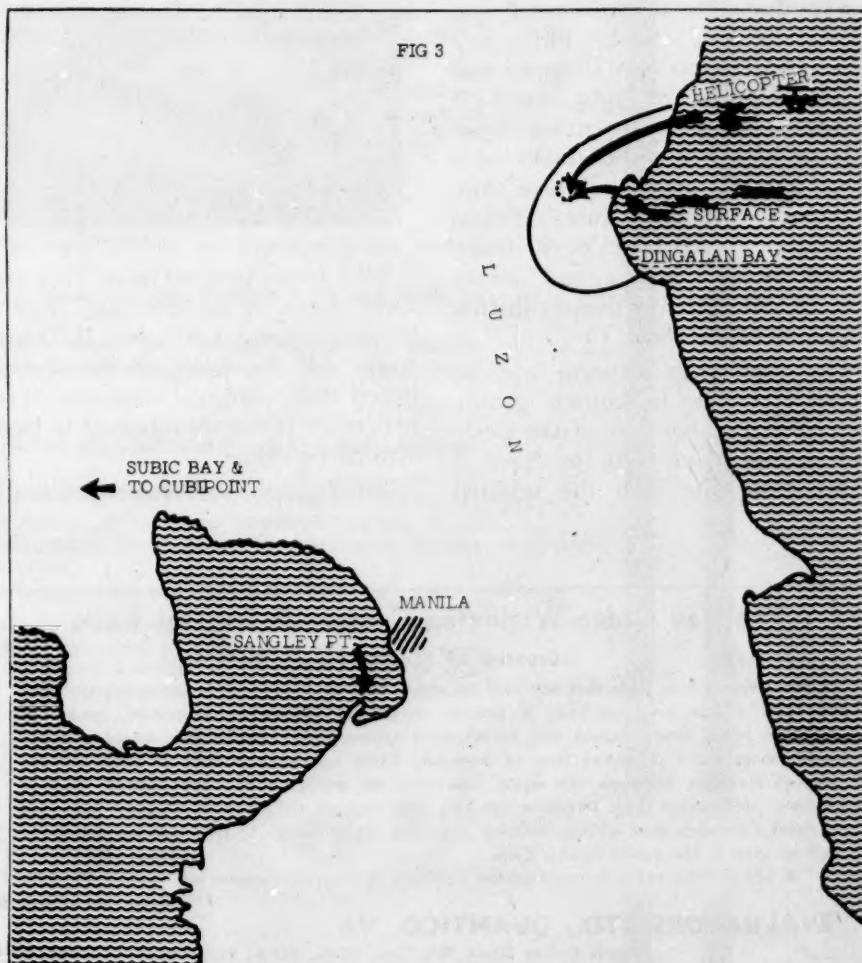
A 2-man radio relay team, which parachuted into a relay point on the night of D-5, employed its "MAY" radio to receive messages from the reconnaissance teams and relay them to high performance re-transmission aircraft. By previous arrangement, reconnaissance teams with their AN/PRC 10 radios (using RC/292 antenna) contacted the radio relay team at appointed times on the nights of D-5, D-4 and D-3, when

the high performance re-transmission aircraft also arrived on station.

Four of the five reconnaissance teams were recovered by TF-1 aircraft at varying times on D-2 and D-1 from a pickup site at a small airfield on the objective area. The fifth reconnaissance team and the radio relay team remained in the objective area and later joined up with helicopter-borne assault units. All teams were prepared to remain in the ob-

jective area for later join-up had the TF-1 recovery failed for one reason or another.

Injection of parachute reconnaissance teams into the objective area proved successful in gaining valuable and timely information on the enemy, weather and terrain. Thus, detailed Intelligence was available on D-2 and D-1 for dissemination by message, but too late for distribution of overlays, sketches and photo-





BGen Nickerson was commissioned in the Marine Corps in July 1935 upon graduation from Boston University. He has served as: Plat Cdr, 2d Bn, 4th Marines; Btry CO, 2d Def Bn; ExO, 25th Marines; CO, 7th Marines; G-3, FMFLant; G-3 FMFPac; Director, Senior School. His decorations include the DSC, Silver Star, Legion of Merit with "V," Bronze Star and Air Medal. BGen Nickerson is currently assigned to HQMC.

graphs of landing zones and other objectives. "Skyhook" technique would help to overcome part of this difficulty.

Another answer is to introduce Parachute Reconnaissance Teams into the area during the planning phase, at about D-60 to D-30. Last minute confirmation of Intelligence so gathered could be accomplished by jumping Parachute Reconnaissance Teams during the period D-4 through D-2. The point we make here is that these Para-Recon Teams jumped in and were recovered as planned; and they *did* get their messages out.

The amphibious reconnaissance was conducted by the Advance Force, employing US and Philippine Teams. All teams were dropped and recovered during daylight. An APD was used as the transporting vessel because of the nonavailability of a Fleet type submarine. These Amphibious Reconnaissance Teams normally would have been transported by submarines, and would have executed their missions during the hours of darkness.

The Pathfinder Platoon was attached to the helicopter group, MAG-16. The concept of the pathfinding operation was to have 4 teams parachute into the selected

landing areas, establish and operate 2 primary and 2 alternate helicopter landing zones. Each landing zone was to be capable of handling flights of five aircraft at each landing site. A 4-man team was to establish an IP for each landing zone at designated points. All teams were to execute pathfinding missions at L-hour (scheduled time for landing first assault waves of helicopters).

So it was planned. The theory of attaching these pathfinding teams to the helicopter group was based on the premise that pathfinding is an extension of the transport aviation function.



All 4 teams jumped from TF-1 aircraft, generally on schedule. The 2 IP teams jumped from an R4D aircraft. All the pathfinders accomplished their assigned missions. The helicopter pilots are reported to have "sworn by them!"

Briefly, the Force Reconnaissance

Company employed all 3 of its major tactical elements in the STRONGBACK exercise in performing its mission of gaining information to assist the commander in arriving at decisions, and in executing the vital pathfinding role in the landings.

The Force Reconnaissance Company, as currently organized and equipped, is not the final answer. It cannot snatch the final veil for the "3-Spooks," nor can it open all the locks of a Houdini apparatus. The company itself appears to contain "apples and oranges," and experts are quick to point out the need to separate the purely reconnaissance function from the pathfinding function. The least common denominator, for the present, is the parachute jumping qualification authorized and required in all 3 of the major tactical elements of the Force Reconnaissance Company — amphibious, para-recon, and para-pathfinding. The future may see the pathfinders made organic to helicopter groups. In my opinion, the STRONGBACK solution of attachment is a good solution for the present.

In addition, there are other problems: first, qualifying men as dual self-contained underwater breathing apparatus (SCUBA) and parachute trained reconnaissance agents; second, obtaining far better communications; and third, acquiring a means of fast entry into an area to drop the para-recon teams, to name but a few. If we all understand the present Force Reconnaissance Company's capabilities and limitations, and think about ways and means of improving the above stated concept of employment, we'll not awaken during the battle, surrounded by the fog of war, too late. Any ideas?

USMC

The Van Orden-Wigington Combat & Survival Knife

Created by Marble Arms

A Bowie-type 6-inch blade that will chip dry oak or hickory at a 45-degree angle and still hold its edge. A hand-processed knife of optimum weight and balance for camp-craft, combat or survival. Strong handle capped with an octagonal hammer head. Reinforced scabbard complete with thongs and a sharpening stone in a pocket. Thirty saw teeth on back of blade will cut through Plexiglass, aluminum skin metal, steel cable and one and a half-inch saplings. Blade is 8-grain, 1095 carbon steel forged—a gun-blue, rust-resistant finish, 55-57 Rockwell hard, yet it takes a 9-degree bend without breaking or passing elastic limits. Specifications for this knife will be used in new BuAer Survival Knife.

A \$25.00 value available to servicemen anywhere in the postal system for ***\$16.00** post paid

(*Probably less at your Marine Exchange)

EVALUATORS LTD., QUANTICO, VA.

George O. Van Orden, Brig Gen., USMC, Ret'd., President

SHOWROOM #1 WOODLAND DR., TRIANGLE

Prize Essay Contest

\$2,000

CLASSIFICATIONS

- Group I: Field Grade Officers; Civilians**
- Group II: Company Grade Officers**
- Group III: Enlisted**
- Group IV: Members of the Platoon Leaders Class, Marine Corps Option NROTC, Officer Candidates Class and NAVCADs.**

(Prospective officers may enter Group IV if they have not received their commission at the time the essay is submitted.)

A total of \$2,000.00 will be awarded to the winners of the Marine Corps Association's 1959 Prize Essay Contest. Essays will be judged in the 4 classifications, determined by the status of the contestant (active, inactive or retired member of the Armed Forces of the US and its Allies or as a civilian). A prize of \$500.00 will be awarded to the winner in each group. If no essay entered in the contest is of a sufficiently high standard of excellence, no prize will be awarded in the classification concerned. In the event of a tie, awards may be prorated.

Material dealing with original thinking on military subjects is particularly desired. Historical essays are not solicited unless they can point up some development or far-reaching thought that affects us directly today.

In addition to the prizes awarded, one or more essays may receive "Honorable Mention" and be accepted for publication. Those not receiving a prize or honorable mention may be accepted for general publication in the GAZETTE. Compensation for such articles will be adjudged by the Editorial Board.

General Rules

1. Contestants may write on any subject of military interest but essays may not exceed 5,000 words and they must be original.
2. They must be typewritten, double-spaced, on paper approximately 8 x 11, and must be submitted in triplicate.
3. The name of the author shall not appear on the essay. Each essay heading shall contain an identifying phrase consisting of the last 5 words of the essay. This phrase shall appear:
 - a) On the title page of the essay.
 - b) On the outside of a sealed envelope containing the name (rank and serial number, if any) of the author.
 - c) Above the name and address of the author, inside the identifying envelope.
4. Essays and identifying envelope must be mailed in a sealed envelope marked Prize Essay Contest Group (I, II, III, IV as appropriate) to the Secretary-Treasurer, Marine Corps Association, Box 1844, Quantico, Virginia.
5. Essays must be received by the Secretary-Treasurer prior to 1 October 1959.

The copyright of any essay which appears in the GAZETTE is the property of the Marine Corps Association. No liability for the loss, return, judging or reports on any essay submitted will be assumed by the Marine Corps Association or the GAZETTE and the decisions of the Editorial Board will be final. No inquiries regarding essays will be answered until final judgment has been made.

DEADLINE 1 OCTOBER 1959

The Marine Corps Association



BOOKS ON PARADE

ARMS AND THE STATE

WALTER MILLIS, with HARVEY C. MANSFIELD and HAROLD STEIN

This study offers a summary of recent experience in dealing with the complex relationships of military and civil factors in national policy-making. In the account of happenings since WWII, constituting the principal portion of the book, Walter Millis gives a lucid and absorbing analysis of the major crises as they arose—and what we did about them.

The Twentieth Century Fund, N. Y. \$4.00

STALINGRAD: The Battle That Changed the World

HEINZ SCHROTER

Stalingrad, which marked a major turning point of WWII, was one of the decisive battles of world history. The importance of this vast and dramatic conflict which took place between the Don and Volga Rivers in 1942 and 1943, culminating in the annihilation of the German Sixth Army, cannot be overemphasized. This volume, illustrated with maps and photographs, tells the full story. The author was with the Sixth Army as a war correspondent, and he presents a graphic and gripping account of his subject.

E. P. Dutton & Co., N. Y. \$5.00

USA—SECOND-CLASS POWER?

DREW PEARSON and JACK ANDERSON

The dustjacket says this volume "... is the shocking story of how we have let ourselves fall behind scientifically and militarily in the age of earth satellites and missiles. It tells precisely where we stand today in relation to the Russian achievements and what we must do to ensure our survival . . . [the authors] are outspokenly critical, in the way for which Drew Pearson has become famous, on this subject of vital interest to every American—his own survival."

Simon and Schuster, N. Y. \$3.95

LEYTE, JUNE 1944—JANUARY 1945:

Vol XII of History of United States Naval Operations in World War II

SAMUEL ELIOT MORISON

In this 12th volume of the definitive History of United States Naval Operations in WWII, Adm Morison records the penultimate phase of the Pacific War. The Battle for Leyte Gulf is not only the greatest naval battle of all times, but one of the most controversial engagements in the American War in the Pacific. This account makes the full story, in all its fascinating details, available to the public for the first time.

Atlantic-Little Brown, Boston, Mass. \$6.50

THE RUSSIANS IN THE ARCTIC

TERENCE ARMSTRONG

The Arctic is becoming increasingly important, and since the Russians own more of it than anyone else, one might expect that they also know more about the techniques of living in those regions and exploiting them. Dr. Armstrong set out to see if this is true in the light of events of the last 20 years or so. Secrecy precluded collection of enough evidence for a full survey. But accounts of a number of expeditions and projects of various sorts filtered through. From these it is possible to derive a valid impression of the progress the USSR has made.

Essential Books, Fair Lawn, N. J. \$4.50

I SAILED WITH RASMUSSEN

PETER FREUCHEN

This is the story of a rare friendship between 2 remarkable people. Peter Freuchen wrote it in tribute to the man who meant most to him in the world—Knud Rasmussen, the renowned Danish explorer. In his uniquely engaging way, Freuchen presents Rasmussen here not in formal biography but as he remembered him. For 14 years Freuchen was Rasmussen's "partner," accompanying him on expeditions all over Greenland and to northern Canada.

Julian Messner, Inc., N. Y. \$3.95

HISTORY OF U. S. MARINE CORPS OPERATIONS IN WORLD WAR II: Pearl Harbor to Guadalcanal

LTCOL FRANK O. HOUGH, MAJ VERLE E. LUDWIG, HENRY I. SHAW, JR.

This is the first volume of a projected 5-volume series prepared by Historical Branch, G-3, HQMC. The need for an analytical and interpretive official history of Marine Corps operations, useful to civilian and military students and scholars as well as to the general public, was recognized soon after the end of WWII. Fifteen preliminary monographs were published between 1947 and 1955 as part of the groundwork. In this volume, 3 of these monographs—Wake, Midway and Guadalcanal—have been reassessed, and extensive use made of Japanese material not previously available.

Government Printing Office Washington, D. C. \$5.00

WHAT HAPPENED AT PEARL HARBOR?

Edited by HANS LOUIS TREFOUSSE

A conspiratorial theory about the origins of the Pacific War has grown up, just as similar theories concerning other wars have developed. In the pages of this book, the most pertinent documents concerning Pearl Harbor have been reproduced. Four different locations—Pearl Harbor, Washington, Tokyo and Berlin—have been selected as foci for an understanding of the circumstances surrounding the attack. A separate section dealing with the Hull-Nomura conversations has been included, and an effort has been made to let the witnesses speak for themselves.

Twayne Publishers, N. Y. \$6.00

NAPOLEON'S RUSSIAN CAMPAIGN

PHILIPPE-PAUL DE SEGUR. Edited and translated by J. DAVID TOWNSEND

One of the great military campaigns which has stimulated the interest and imagination of men is Napoleon's disastrous invasion of Russia in 1812. Among all the accounts of this great event, the Comte de Ségar's has long been one of the most reliable and dramatic. Now for the first time in over 50 years it is made available in a new translation and an edition which omits only tedious detail or repetition. The author participated in the campaign as a general and aide-de-camp to the Emperor. His account begins with the Grand Army poised on the banks of the Niemen ready for the invasion of Russia, and carries through to the tragic retreat.

Houghton Mifflin Co., Boston, Mass. \$5.00

Marine Corps Gazette • February 1959

THE THREE EDWARDS:
The Pageant of England
THOMAS B. COSTAIN

Within this volume lie 100 years of taut, color-packed English history. They were the years 1272-1377, years resplendent with stories of heroism, of the Scottish wars and William Wallace and Robert the Bruce, of the great battles in the Hundred Years' War; dramatic with stories of illicit loves, of conspiracies, and of executions. At the heart of all the stories is the story of the great Plantagenet family. And behind this story, a mass of fascinating information about the times, the habits, the inventions, the arts, the authors, the builders, the merchants, the churchmen of 13th and 14th century England.

Doubleday & Co., Garden City, N. Y. \$4.75

MY YEARS WITH CHURCHILL

NORMAN McGOWAN

The author was Churchill's personal servant for several vitally important years. He was constantly at his side and travelled with him everywhere. Here he reveals for the first time some of the most fascinating and lovable facets of Sir Winston's many-sided character as manifested in his personal and private life. Illustrated with 43 photographs.

British Book Centre, N. Y. \$3.95

MORE IN SORROW

WOLCOTT GIBBS

For 30-odd years Wolcott Gibbs diverted readers of *The New Yorker* with his incomparable parodies, profiles, short stories and theater reviews. During that time he contributed more words to *The New Yorker* than anybody else, a fact which he regarded with more awe than pride. In Mr. Gibbs' opinion, the selection that appears in the present volume contains the best of "this staggering output," a view which James Thurber seems to share.

Henry Holt and Co., N. Y. \$4.00

AGGRESSION

JOHN PAUL SCOTT

The control of aggression is a major problem in any human group. In this book the author presents a concise account of scientific knowledge about aggressive behavior in modern society—its causes, control and consequences. All research findings point to the fact that there is no physiological evidence of any internal need or spontaneous driving force for fighting; that all stimulation for aggression eventually comes from forces present in the external environment.

University of Chicago Press, Chicago, Ill. \$3.75

MR. DAVIS'S RICHMOND

STANLEY KIMMEL

Here, in 70,000 words and more than 200 rare pictures, is the full story of the capital of the Confederacy during the years of the War Between the States. Stanley Kimmel, author of the recent *Mr. Lincoln's Washington*, now writes about the people and events which overnight turned proud, sedate Richmond into one of the most exciting cities in America. The volume begins with the arrival of one president—Jefferson Davis—and ends with the arrival of another—Abraham Lincoln.

Coward-McCann, Inc., N. Y. \$7.50

BEST CARTOONS FROM ABROAD

1958

Edited by LAWRENCE LARIAR
and BEN ROTH

A parade of international laughs, these 300 cartoons are from top publications throughout the world and represent every conceivable approach to illustrated humor. Provoking every kind of response from the chuckle to the guffaw, they stand a hilarious testament to the universality of the human instinct for laughter at human foibles.

Crown Publishers, Inc., N. Y. \$2.95

A GUIDE TO NAVAL STRATEGY

BERNARD BRODIE

In this new edition of Bernard Brodie's classic work on naval strategy, the 2 chapters on "The Tools of Sea Power" have been recast to take account of the tremendous changes in weapons since WWII, and a new chapter has been added to describe the lessons in strategy derived from the Korean War and later events. This edition is intended for use in the Naval War College's correspondence course in "Strategy and Tactics."

Princeton University Press \$6.00
Princeton, N. J.

**THE OUTER BANKS OF
NORTH CAROLINA**

DAVID STICK

The Outer Banks have played a significant and often romantic role in the history of North Carolina and the nation, and they have long been of interest to geologists, historians, linguists, sportsmen and beachcombers. The banks are a long series of low, narrow, sandy islands stretching along the North Carolina coast for more than 175 miles, separated from the mainland by broad shallow sounds and periodically breached by narrow inlets.

University of North Carolina Press \$6.00
Chapel Hill, N. C.

**13 WAYS TO BREAK THE
SMOKING HABIT**

KURT SALZER

This little paperback book with its 28 droll cartoon-like drawings and humorous asides provides 13 effective, tongue-in-cheek antidotes to the national compulsion to puff oneself to oblivion. Good or bad, smoking is undoubtedly a habit that is here to stay. Whether you wish to cut down, stop smoking, or just continue on tobacco road, the volume is sure to provide you with humorous, non-medical suggestions.

Sterling Publishing Co., N. Y. \$1.00

THE GAZETTE BOOKSHOP will fill your order for any book in print. The discount to Marine Corps Association members is 10 per cent of the list price. No discount on shipments to foreign addresses (FPO and APO numbers are not considered as foreign addresses). Only Association members may purchase

merchandise on credit. The Association will pay all postage on members' purchases. Non-members will be billed for the postage on shipments to foreign addresses. Please make checks and money orders payable to the Marine Corps Association. The Association cannot be responsible for cash sent in the mail.

Title (Please print!)

Price \$ Send Books to:

Remittance Enclosed
 Bill me (members only)

Membership No. _____

Send Bill to:

Members subtract 10% _____
Amount due \$ _____

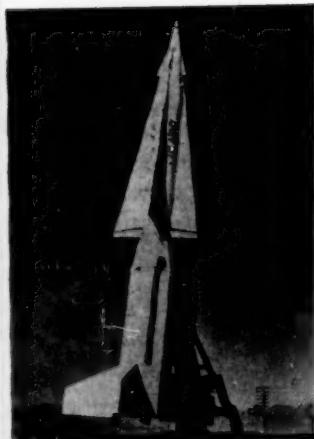
Signature _____

THE GAZETTE BOOKSHOP
Box 1844, Quantico, Va.



MISSILES AREN'T MYSTERIOUS

By 1st Lt David J. Dunn



Nike-Hercules



Hawk



Terrier

A basic discussion of guided missiles, with particular emphasis

on the propulsion system, aerodynamic structure and guidance

To some people the words, "guided missiles", convey a picture of push-button warfare; missiles hurtling through space to destroy enemy cities thousands of miles away. At best, this is a very limited point of view. Guided missiles can and will be used on almost every level of warfare. Today, we have just about every conceivable type of missile: surface to air, surface to surface, surface to underwater, air to air, air to surface, air to underwater, underwater to air, and underwater to surface. We can expect to see more and more missiles of these various types in use throughout the services.

Missiles will, undoubtedly, replace some weapons; but, otherwise, they should not cause any radical change in our military structure in the foreseeable future. They are here to stay, however, and will become increasingly important to us as science develops ways and means of making them smaller, less costly and more accurate. Also, we can expect that in any future conflict our opponents will be using them against us.

Because of the security classifications given to almost all missile research and development, it is difficult for the military man, who is not actually engaged in missile work, to know exactly how far we have progressed in their development. It is,

of course, infinitely more difficult to pinpoint the progress of Soviet Russia. Yet, it is of vital importance that all who may be expected to exercise command in any future conflict have a basic knowledge of the types of weapons our enemies may employ. This would seem to be an unsolvable dilemma, but actually it is not. There is a great deal of information available to us, both historical and technical, on guided missiles.

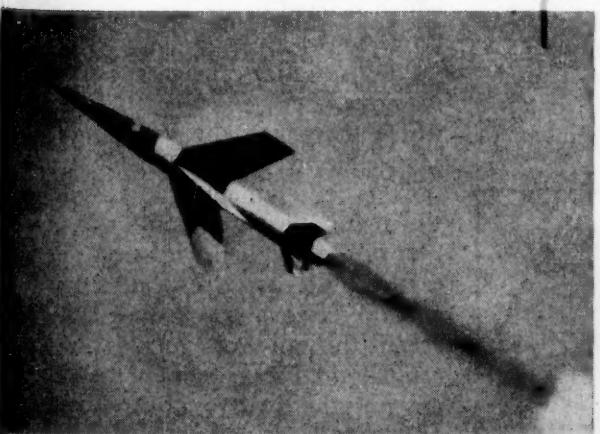
If we know the basic principles involved in the operation of guided missiles—what makes them do what they do—then we will have some basis for making intelligent decisions when we are faced with them in combat. For example, the British learned how to take control of and thereby divert the German HS 293, a radio-controlled, air-to-surface missile, which was used against Allied shipping at Palermo. This forced the Germans to discontinue using this model and switch to types using connecting wires from the plane to the missile or a television "eye" for guidance. The Germans, incidentally, used guided bombs—guided by electric control through attached wires—during WW I when they dropped them from Zeppelins.

A guided missile is essentially a pilotless vehicle which travels above the earth's surface or underwater and which contains a mechanism

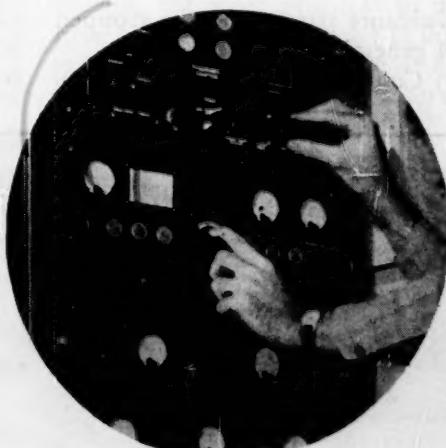
which enables it to alter its course or trajectory. For military purposes, a missile may be considered to consist of 4 basic components: the warhead, the propulsion system, the aerodynamic structure or body, and the guidance system.

The warhead of a missile contains the payload which can consist of any of the explosives or chemical and biological agents in use today. The same factors which govern the selection of the payload to be used with conventional weapons will apply to guided missiles. Availability, the nature of the target, payload capacity and desired effect are a few of these factors. Due to the adaptability of guided missiles to the various types of payloads, it is of vital importance that every Marine be thoroughly trained in the immediate action to be taken when coming under a chemical, biological or nuclear attack. A high level of troop training will be essential for survival through any attack in which the strike of the missile may be the first warning sounded. Local air superiority will no longer be sufficient assurance against surprise.

Missile propulsion systems employ, for the most part, either rocket or mechanical jet-type engines or a combination of the two. Both are of the reaction type of engine in that they obtain their propulsive force from the thrust produced by the ex-



Lacrosse



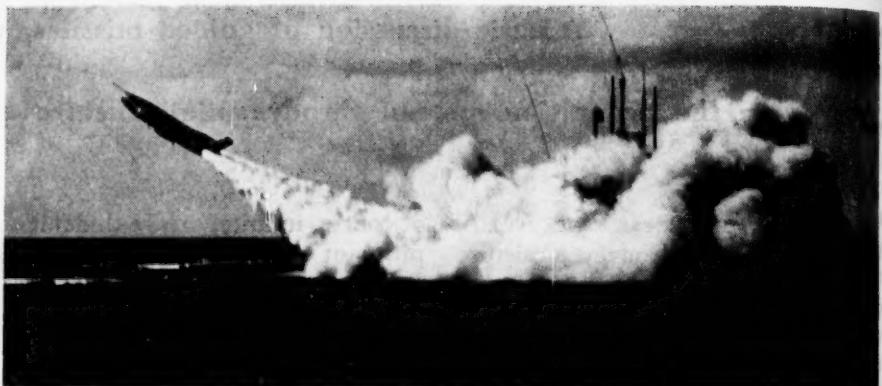
pansion of the products of combustion through a nozzle. The mechanical jet-type engine utilizes atmospheric oxygen as an oxidizer while the oxidizer is contained in the propellant of the rocket. This is important when we consider that the jet engine is thereby limited to such altitudes whereat the atmosphere contains sufficient oxygen to sustain combustion of the fuel. There is no such limit for the rocket.

The aerodynamic structure or body acts as a vehicle for the other components of the missile. The guided missile does not necessarily have to employ external control surfaces for stability or directional control as do airplanes. The high skin friction at excess speeds requires that these external surfaces be kept to a minimum. The missile may employ internal fins located in and acted upon by the exhaust stream or a movable motor mounted on gimbals so that the direction of thrust controls the direction of flight. The Viking rocket, a surface-to-air missile, employed this latter system.

The guidance system is the heart of the guided missile and the distinguishing feature which sets it apart from conventional types of ammunition. Artillery shells, rockets, and aerial bombs have the common shortcoming that once fired, launched or dropped, their trajectories are subject only to ballistic laws and natural phenomena such as the wind. In the guided missile, the guidance system, acting through a series of control mechanisms, controls yaw, pitch and roll during either all or part of the flight of the missile and thereby guides it to the target. An understanding of the various guidance systems is basic to the understanding of missiles as a whole.

Guidance systems may be grouped in 4 general classifications:

- 1) Completely self-contained sys-



Regulus being fired from submarine

tems which require no external control or reference.

- 2) Systems which utilize natural phenomena for reference.
- 3) External or remote control systems.
- 4) Homing systems.

The value of a guidance system which is completely self-contained and requires neither external control nor reference is obvious. Such a system would defy enemy capture (the assumption of control of a missile by the enemy). Barring the malfunction of the missile itself, the only way that it could be prevented from striking its target, once launched, would be by the actual physical interception and destruction of the missile. If the missile is in the 5-10,000 mile per hour speed range, its physical interception is exceedingly difficult.

The inertial guidance system is a completely self-contained system which employs a dead reckoning technique and requires only that the initial velocity vector and the coordinates of the launching site be entered into the system prior to its launching. In February of 1953, an inertial guidance system piloted a B-29 from Massachusetts to Los Angeles. This system can only be used to guide a missile on a predetermined path and does not, of course, consider any movement of

the target. It would be used in long range, nuclear-armed missiles for attacking area targets. It is one of the 2 guidance systems being considered for use in the Atlas, the first intercontinental ballistic missile to be built by the US. The Atlas will have a range of over 5,000 miles, a speed in excess of 8,100 mph, a ceiling of about 1,000 miles and will carry an H bomb which will cause total destruction within an area of 450 square miles. Its guidance system will be capable of guiding it to within 5 miles of a predesignated target. Such a missile has been considered to be the ultimate weapon.

There are two basic guidance systems which utilize natural phenomena for reference—the terrestrial reference and the celestial navigation systems. Terrestrial reference systems can be designed to react to such natural phenomena as the magnetic and gravitational fields of the earth or the variation of air pressure and density with altitude. The German V-1 missile used a terrestrial reference guidance system. It contained a compass which reacted to the magnetic fields of the earth for directional control and a mechanism which reacted to air density for altitude control.

The celestial navigation system employs star tracking telescopes which determine the vertical angle of preselected stars. This information is entered into a computer which can then determine the position of the missile in relation to the earth. Both the terrestrial reference and the celestial navigation systems are in the same category as the inertial guidance system in that they can only be used to guide a missile on a predetermined path. They also, because of their methods of operation and inherent complexity, will



Lt Dunn graduated from the Naval Academy in 1955. After attending Basic School at Quantico, he was assigned to the 1st Marine Brigade where he was the Executive Officer of H-3-12. He wrote this article because he believed "there is very little material on missiles which would be of use to the small unit CO. . . I wanted to stimulate some discussion on specific uses for, and defenses against, missiles."

be restricted to strategic rather than tactical roles.

A majority of the guidance systems which have been developed to date employ some form of external or remote control. In almost all of these systems the controlling station uses either radio or radar to communicate with the missile. An exception to this is the type of system which employs control wires from the control station to the missile. The HS 298, a German air-to-air missile of this type, was developed during WWII. The command impulses were transmitted through very fine wires which unwound from bobbins in the missile which had an eleven mile range.

The simplest form of the radio-controlled systems is the type used to control target drones and model airplanes. This requires only a radio transmitter and an operator who can see both the missile and the target. The German HS 293, used at Palermo, was of this type. The limitations of this system are obvious; it is highly susceptible to interference and can only be used for slow missiles at short ranges and against slow-moving or stationary targets.

In a refinement to the simple radio control system, a television camera is installed in the missile and the operator no longer has to have visual contact with the missile. He watches for the target on a television screen and guides the missile on to the target by radio commands. The US Navy converted some obsolete planes into missiles guided by this system and used them in Korea.

One of the most important of the radio-controlled systems employs 2 radar sets and a computer. One of the radars tracks the target and sends position data on it to the computer. The other radar tracks the missile and provides the computer with position data on it. The computer uses this information to determine the path the missile must follow in order to intercept the target and automatically broadcasts the necessary commands to the missile. The radar sets may be either manually operated or fully automatic.

All of the externally controlled systems mentioned so far come under the classification of command guidance systems. A command guidance system is one in which directional control signals are transmitted by an

outside agency to the missile which has only to convert them into electrical signals to activate its control mechanisms.

Another type of external control is used in the beam rider system. In this system a missile is caused to follow the center of a radar beam until it contacts the target. The radar transmitter consists of a parabolic shaped reflector with a rotating dipole which produces a beam whose intensity increases from the center to the outer fringe. The missile generally has wings or fins which contain antennae capable of picking up intensity variations in the beam. When the missile is off center, the intensity of the signals received by the antennae differs and this difference is converted into electrical currents which, operating through the control mechanisms, re-centers the missile. The accuracy of this system decreases as range increases and, because the beam has to follow the target, a sudden alteration of course by the target could cause the beam to move so suddenly that the missile would be unable to keep up with it. Once past the outer fringe of the beam, the missile would be unable to regain the center.

A modified beam rider system is a combination of the beam rider and the command guidance systems. In this system, the missile guiding beam is not trained on the target but is positioned by a target tracking radar and computer in such a way that the missile and the target arrive at a collision point in the beam at the same time. The Nike missile uses such a system.

Still another type of external control is used in the radio navigation guidance system. In this system, 2 transmitters, spaced at a known distance, send out signals simultaneously. Unless a receiver were equidistant from the 2 transmitters, it would receive the signals with a time

lag the length of which would depend on the relative position of the receiver. The guidance system is set to receive the signals with a definite time lag. Once in operation, it will act through its control system to keep the missile on a path such that the signals are received with the required time lag.

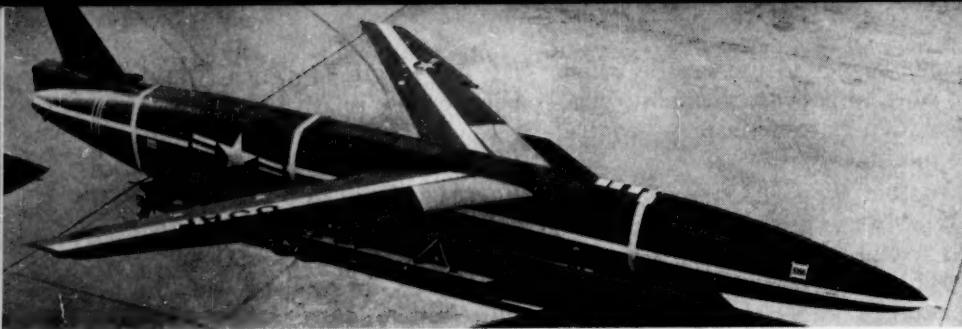
Homing guidance systems are systems which react to some distinguishing characteristic of the target. These systems can be sub-classified as either active or passive. The active systems, for the most part, use radar to illuminate the target and "home" on the reflection of the radar waves.

The passive homing systems do not emit any type of waves. They contain mechanisms which react to such characteristics as infrared (heat) radiation, light waves, acoustic waves, magnetic fields, radio or radar transmissions and reflected radar waves which do not originate in the missile. The latter system has been used in air-to-air missiles which "home" on targets illuminated by radar from the launching plane. They have the advantage of being smaller and more economical than those missiles employing the active systems. This type of system will become increasingly important as radar achieves a new significance in land warfare. A compact, lightweight radar unit for field use has been developed which can detect the movement of a single man at a distance of a half-mile. Large groups of personnel or vehicles can be detected at much greater distances. Homing missiles, if used in conjunction with radar sets such as this, could effectively stop the movements of large bodies of troops and vehicles even at night.

Of the remaining passive homing systems, the most practical to date have been those which react to infrared radiation. Every source of heat is a source of infrared waves; an air-

Sparrow I





Snark

plane engine, a light bulb, a field stove, a cigarette—all emit infrared waves when in use. An infrared sensing system has been developed which can detect the heat of a lighted cigarette a half mile away.

The foregoing has been a brief and far from complete discussion of guided missiles. It will not even approach making a "missile expert" out of anyone, but it will have served its purpose, if it has imparted a little knowledge of the techniques available in missile warfare and if it stimulates some thought on the tactical applications of these techniques.

It will be of little comfort to the unit commander or to the Marines in his command if their sudden demise, as the result of the employment of tactical missiles, furnishes "stateside" engineers with the information they need to devise a defense against them. It would be a much more pleasant situation if the commander could report the measures he took to successfully defend his command. It will undoubtedly take the best intellects available in our nation, plus some assorted electronic brains, to devise a practical defense against ICBMs and other strategic missiles because of their complexity and capabilities. Tactical missiles, however, will have to be relatively small and inexpensive to be economically and logically feasible. This means that they will have to be simpler in operation and the simpler their operation the easier it will be to devise a defense against them.

Imagine the following situation: You are a battalion commander operating independently and in such a position that you have to be supplied by helicopter. You are in desperate need of small arms ammunition. Two helicopters have tried to get through to you but both of them have been hit within a thousand yards of your position by what appears to be a proximity-fuzed shell or guided missile. You estimate that

the explosion produced is roughly that of a five inch shell. You know that the enemy does not have any weapons in this area which are capable of firing an unguided shell or rocket of this size with the accuracy that is being achieved. So you conclude that he is firing guided missiles. You have detected no radar or radio transmissions capable of functioning the guidance system of a missile and you know that the enemy battalion you are in contact with is not equipped to fire missiles. You conclude that the missile launching equipment is located with a larger enemy force which is 10 miles from you, but you do not have air support to seek out and destroy the site. You know a little about guided missiles and make an educated guess that the enemy is using missiles with a homing system which reacts to some characteristic of the helicopter. You know that any homing system which could pick up a helicopter at treetop level 10 miles away would be too large and expensive to be used in this situation so you decide that a forward observer with the enemy battalion adjacent to you must call the missiles in when the helicopters approach your position. The missiles then are unguided until they are sufficiently

close to your position to react to the characteristics of the helicopter and home on it. Thinking over the various types of homing systems you are familiar with, you decide that it must be a passive type system as there would not be sufficient discrimination between the helicopter and the treetops for radar to be effective. Of the passive homing systems, you know that those which react to infrared radiation are the most reliable, and you therefore conclude that the missiles are homing on the heat generated by the helicopter's engine.

Question: In the foregoing situation, what action would you take?

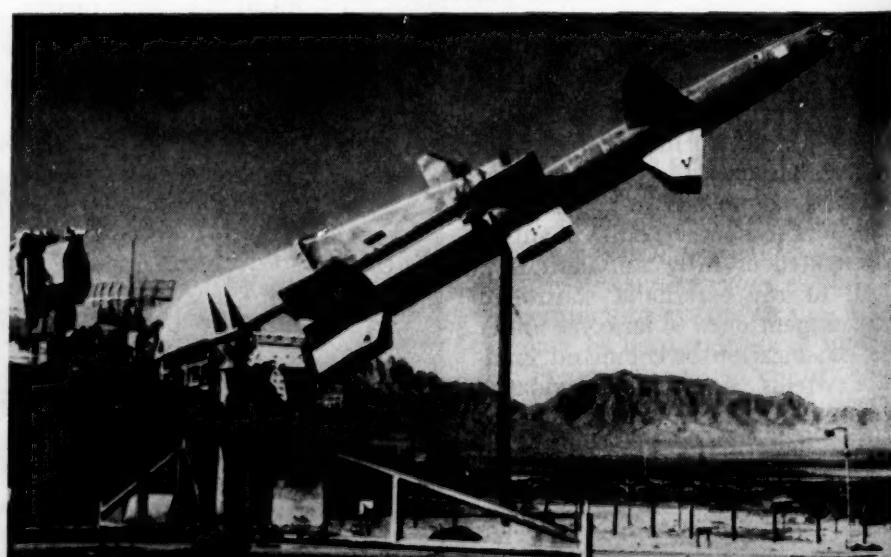
- a) Assume that it is your kismet to die in battle and so do nothing.
- b) Fix bayonets and attack without the ammunition.
- c) Request that the UN declare the use of guided missiles unlawful.
- d) None of the above.

If you answered (d), give yourself a pat on the back.

Knowing from high school physics that any source of heat is a source of infrared radiation, you prepare a large bonfire at a safe distance from your position. You radio for a third whirly-bird and when it is about 2,000 yards distant, you put a match to your gasoline-primed bonfire. The missile homes on the bonfire—the whirly-bird delivers the ammunition—and your battalion goes on to victory.

Far fetched? Over simplified? Possibly it is, but it should serve to illustrate the fact that a little knowledge plus a little thought is better than none of either. USMC

Talos



Congratulations!

These units have 100% officer
membership in the Marine Corps Association

1st Svc Bn	12th Inf Bn	56th Inf Co
3d Med Bn	1st Com Co	58th Inf Co
3d Bn, 9th Marines	1st Armd Amph Co	66th Inf Co
Co "C," 1st Marines	1st 155 How Btry	67th Inf Co
Co "D," 2d Marines	1st Truck Co	71st Inf Co
Co "D," 6th Marines	2d Eng Co	89th Inf Co
HqCo, 7th Marines	2d Truck Co	99th Inf Co
Co "H," 7th Marines	2d AW Btry	MB, Washington, D. C.
H&S Co, 2d Bn, 8th Marines	2d Armd Amph Co	MB, Fallbrook, Calif
Co "E," 8th Marines	3d Com Co	MB, Miramar, Calif
Co "F," 8th Marines	4th Eng Co	MB, Patuxent River, Md
Co "G," 8th Marines	9th Eng Co	MB, Guam
Co "B," 9th Marines	4th 8" How Btry	MB, Sasebo
Co "C," 9th Marines	4th Truck Co	MB, Argentia
Co "E," 9th Marines	5th AW Btry	MD, NAS, Chincoteague, Va
Co "G," 9th Marines	7th AW Btry	MD, USS Leyte
Co "H," 9th Marines	8th 75mm AAA Btry	MD, Key West, Fla
Co "A," 3d MT Bn	6th Rifle Co	MD, USS Intrepid
Btry "C," 2d AAA-AW Bn	16th Rifle Co	MD, USS FDR
Btry "M," 11th Marines	19th Rifle Co	MD, USS Valley Forge
1st Lt Spt Co, 1st Mar Div	21st Rifle Co	MD, USS Rochester
3d Lt Spt Co, 1st Mar Div	6th Inf Co	MD, USS St Paul
2d Lt Spt Co, 3d Mar Div	10th Inf Co	MD, USS Ticonderoga
MP Co, 1st Mar Div	14th Inf Co	MD, USS Newport News
3d 155 How Btry	21st Inf Co	MD, USS Bon Homme Richard
1st Rct Tr Bn	25th Inf Co	MD, USS Pocono
3d Rct Tr Bn	27th Inf Co	MD, USS Hornet
HqCo, RTR, PI, SC	29th Inf Co	MD, USS Wasp
HMR (M) 463	33d Inf Co	MD, USS Bennington
VMO-2	36th Inf Co	OSO, Syracuse, NY
VMR-352	39th Inf Co	RS, South Charleston, W Va
1st 155 How Bn	47th Inf Co	RS, San Antonio
1st Inf Bn	48th Inf Co	RS, Jackson, Miss
1st Com Bn	52d Inf Co	MARTD, Norfolk, Va
1st Com Spt Bn	53d Inf Co	MARTD, Niagara Falls
2d 155 Gun Bn	54th Inf Co	

(Others will be published next month)



PAYOUT FOR VTU

WILMINGTON, DEL.—After what the diplomats call an "agonizing re-appraisal," it can only be concluded that the majority of the Marine Reserve officers have not, and will not, participate in any reserve program (when they have choice) as long as they feel that it is designed for a world that once existed, or one that we would like to exist.

The Reserve officers are living in a totally different world. They live in a crazy-quilt, dog-eat-dog economic environment. They live in a world in which the danger of sudden annihilation is an ever-present reality and the conscious or unconscious awareness of this fact leads everyone to a short-range point of view. They cannot see any sense in a long-range outlook when at the drop of a hat hundreds of thousands of Americans may lose their lives fighting for some remote, tiny, worthless islands, and the fall-out from the weapons may contaminate the rest of the world.

As shocking as it may sound to a dedicated individual, this attitude is to blame for the incredible apathy of most Reserve officers.

Our objective is not to put an accusing finger at the Reserve officer, but to take the onus off him. After all, what do we expect of him? He is a victim of his environment. The world today is one of self-indulgence, not self-discipline. We know the price of everything and the value of nothing. And we are at least partly to blame.

From the very beginning we have put a price tag on a Reserve officer's participation in the Corps. One of the strongest selling points of our current recruiting programs for prospective officers is the financial re-

turn. And yet later, when the officer is released from active duty, we wonder why he is attracted to civilian endeavors which pay him more than participation in the Reserve program!

Let's face it, the Reserve officer is more interested in the actual return he can get from his spare-time activity today, and not the possible return of an uncertain tomorrow. He is living in a greedy world and is embroiled in a never-ending rat-race with greedy employers, greedy competitors, greedy acquaintances and greedy public officials. In this era, selfless dedication to an ideal that might cost him money, or even his life, seems ridiculous, if not preposterous!



In view of all this, do we expect the Reserve officer to turn his back on profitable situations, created not by him, but by a world he doesn't control or even influence? If we do, we are either naive or stupid.

Since we can't live in yesterday or tomorrow, the best approach to the problem is to junk all our pre-conceived or fancied notions and redesign our Reserve program to the world that now exists. After all, it's the one we have to live in.

Let's measure the program in terms of what the Reserve officer wants today on a dollar-and-cents basis, not on what we like to feel he wants tomorrow. Then we can determine how the Marine Corps is to get what it must have. Abraham Lincoln pointed the way when he described honest statesmanship as "... the wise employment of individual meanness for public good."

The decision to require each VTU to specialize is a step in the right direction for it gives purpose and direction to the unit's activity. However, this is a long-range factor as far as the Reserve officer is concerned. He is primarily concerned with the short-range payoff.

To put it bluntly, he has only an academic interest, if even that, in the contribution that this specialized knowledge may someday make to a military career he hopes will never materialize. But he is avidly interested in something which will advance his civilian career today. Give him an immediate payoff in the activity which accounts for his existence, as well as his family's, and which absorbs most of his wakeful time, namely, his civilian career, and we will begin to solve the problem.

But what does the Reserve officer really want? More than anything else, he wants success in his chosen career. By and large, most Reserve officers hold responsible civilian positions. In short, they are leaders in multi as well as in uniform. Their success therefore is dependent upon leadership ability. If we can prove to them that they can develop this ability by participation in a VTU program in such a way that there is an immediate carry-over to their civilian career, they will quickly appraise the payoff.

We have long recognized the universal character of leadership techniques and in other days it was sufficient to assume that the individual

The GAZETTE will pay \$15.00 for each letter published in the Observation Post

day or
to the
re-con-
and re-
to the
all, it's
m in
officer
l-cents
feel he
an de-
s is to
raham
en he
ip as
indi-
good."

VTU
right
and
How-
or as
con-
erned

ly an
n the
alized
to a
never
y in-
ll ad-
Give
e ac-
exist-
and
keful
and
pblem.
officer
hing
osen
serve
posi-
ers in
Their
upon
rove
this
TU
here
heir
ap-
uni-
ech-
suf-
dual

could see the advantages as a by-product. But today, we have to realize that this is our main-product. For example, under the old concept, a unit would stress, say Intelligence, and in passing, briefly mention that certain basic leadership abilities involved in procuring and processing the Intelligence, namely, "the ability to think" and "the ability to get along with people," might be useful in a civilian career.

The new concept, however, would see the emphasis put on the 2 leadership abilities by illustrating their use in the area of Intelligence, and by indicating their precise application in a civilian career situation, perhaps in the evaluation of an employee-relations program.

How could this be done? Every unit specialty would be covered in such a way that the main effort would be put on the leadership principle or technique that is immediately transferable to any civilian career. The unit specialty, say Intelligence, would be the by-product. In this way, the Reserve officer would get what he wants—an immediate payoff, and the Marine Corps would get what it desires—participation for a future payoff. The fact that the military indoctrination would be indirect would in no way lessen its value. A bird in the hand, even if caught by salt on its tail, is better than 2 in the bush!

The entire VTU program could be built around the idea of making the Reserve officers more successful in their careers today, and at the same time, training them to be better military leaders for that uncertain tomorrow. This would require a simple combination of principle and practice.

There are many excellent texts available to get the leadership principles, but one of the newest and most appropriate to get the program launched is Joseph L. Kruger's *Principles and Problems of Executive Leadership* (published by George Washington University). This is an excellent research effort which would make it relatively easy to show the application of a leadership principle to both a military and civilian situation because it is a consensus of the top authorities in government and industry on what makes a leader tick. The practical aspect can easily be

solved by having guest speakers from management in industry embracing the careers of the officers involved. Their main purpose would be to illustrate how to apply the leadership principle, revealed in the military situation, to the industrial situation.

In short, by giving the Reserve officer and his employer what they want, the Marine Corps will get what it wants! All the Marine Corps has to do is to merchandise the commodity which has given it an enviable reputation in military circles around the world, namely, its capacity to produce first-rate leaders, in such a way that the Reserve officer and Industry which employs him, realize that it is the best Executive Development program to be attained anywhere, at any price!

LtCol W. P. J. Drakeley, Jr., USMCR

Ed: Like all Marines, we agree that leading troops on the battlefield should continue to get our traditional emphasis. Naturally, we agree that improvements in leadership pay off in any endeavor, civil or military. BUT we know that no one joins the Marines to get rich; we remain convinced that love of Corps and Country continues to inspire those who join our Corps, Regular or Reserve.



BATTLE OF THE TV SCREEN

1ST ARMD AMPH Co, USMCR, GULFPORT, Miss. — Every evening millions of Americans watch television programs. They watch the glory of the Old West, the sophistication of our modern society and the promise of our scientific future. In the military line they soar with Steve Canyon and the Air Force; they "take her down" with the submariners of the "Silent Service"; they thrill to the accomplishments of the "Men of Annapolis" and the cadets at West Point; they roar at Sgt Bilko's misadventures in the Army; they relive

our "Victory at Sea" and "Air Power" campaigns . . . but they don't see Marines on their TV screens.

Why not? Our Corps' history and battle experiences would thrill even a "beat" audience. The human interest of men in boot camp or at Quantico, of their problems and accomplishments, would appeal to young and old alike. Marine versatility on land, sea and air could offer viewers a variety of themes available in no other service.

We have transcribed programs on the radio; our band and drum and bugle corps are busy both here and abroad; our posters, A-signs and billboards are spotted throughout the land; movies about the Marines receive our whole-hearted support; and hometown newspapers are constantly supplied with press releases concerning Mrs. Smith's boy and Sam Brown's son. Thousands of dollars and more thousands of man hours are spent annually to remind the public that "The Marine Corps Builds Men," and yet, when evening comes and millions of Americans forsake the newspapers, radios, posterized store windows and movie theaters to give their undivided attention to the 21-inch screen, the Marines are not there.

There may be Marine TV shows in existence, and these shows may be very good. I cannot say, for with the exception of an occasional commercial, I have never seen one. If a good series exists, let's get it on one of the major networks, sponsored possibly by any one of the corporations from which HQMC procures its materials and equipment. If there is no program series at all, or if the one we have does not sell, let's get one that will appeal to the public . . . a popular product, as it were. Marines have won against impossible odds in open combat. They have survived countless attacks in Washington. It is a shame to see them losing the fight for public opinion in the "Battle of the TV Screen."

Capt J. F. Mathis

Ed: At least 2 well-known producers have put together pilot films for a TV series dealing with the Marine Corps, but as yet they have not been picked up by any TV network or sponsor. The Marine Corps, itself, of course, is in no position to sponsor such programs. HQMC does report that the Marine TV series, "Uncommon Valor," is still being shown on TV stations throughout the country.

LANDING ZONE DEFENSE

• MCAF, NEW RIVER, N.C.—Unlike wars of the past, the airman no longer enjoys the security of being stationed at an airfield miles behind the MLR. Today he finds himself fighting out of a foxhole at night, patrolling and acting the part of the infantryman while still keeping his aircraft in top shape. His landing zone may be part of the so-called front lines. The new concept has shown the need for new arms and new training for the ground Marine. Let's stop forgetting the "helicopterman." He is at present armed with the M-1 or a sidearm. Neither of these weapons fulfills the particular requirements of helicopter squadrons.

It is becoming more and more apparent every day that helicopter squadrons and in particular helicopter reconnaissance squadrons, are going to be responsible for their own defense on many occasions. A realistic view of the future shows that

the Base Landing Zone will be subjected to patrol, sniper and guerrilla actions. With this in mind, the airman must be armed and trained to meet these actions and defeat them. In order that this may be accomplished 2 things are needed:

- 1) Arm *all* helicopter personnel with the M3A1 sub-machine gun
- 2) Provide an aggressive training program emphasizing small unit tactics.

The M-1 or the new M-14 while extremely fine and effective weapons, do not meet the requirements of the plane mechanic or the pilot. They are too bulky to be carried while working on the aircraft. A sidearm is good against small animals in helping a downed pilot fill his stomach but next to useless in destroying potential captors. They will not provide the necessary volume of fire to allow a few men, on the spot, to overcome a determined combat patrol. Furthermore, the ammunition for these weapons is too heavy

and too bulky to be carried while working on the aircraft for hours on end. The M3A1 sub-machine gun is light, compact, provides the necessary short range and heavy volumes of fire needed in the type action most likely to be encountered by helicopter squadrons. By arming the HMR (C) squadron with this weapon it provides an emergency source of ammunition for the reconnaissance battalion.

A helicopter reconnaissance squadron working in the field with the 2dReconBn was subjected to simulated sniper fire, small patrol probing action and attacks from platoon-size patrols whose mission was the destruction of the unit's aircraft and personnel. A heavy flying schedule was maintained both day and night throughout the problem. Due to the missions of the supporting recon companies, they were unable to provide the necessary personnel for defense of the landing zone. Defense became the responsibility of the squadron.

Due to the heavy flight schedule only a small number of personnel were assigned permanent defensive positions. These were mostly in the form of listening posts. Regardless of this, in emergency situations all hands not actually flying, both mechanic and pilot, were available and used to drive off and destroy the enemy. Lack of readily accessible personal weapons showed that excessive casualties would have been sustained by the squadron. Lack of immediate control was made up by the aggressiveness and spirit of the individual airman. The M3A1 sub-machine gun would have answered these needs. It was also apparent that at least 4 light, ground-mounted machine guns (M1919A4 or the new M-60) should be added to the squadron's T/O.

Practically all actions anticipated in which aviation personnel will be involved will be close-in, short-range fire fights. This alone speaks the need for a short-range automatic weapon. The helicopterman's routine mission of rescue involving flights into enemy territory points up again the need of giving the rifle to the infantryman and the sub-machine gun to the helicopterman.

ATSGT M. M. Murray

Marine Corps Gazette • February 1959

Established 1918

A. M. Bolognese & Sons

TAILOR AND HABERDASHER, QUANTICO, VIRGINIA

ANY TIME YOU ARE IN URGENT NEED OF UNIFORM ARTICLES
EITHER CALL OR WIRE. LET US MOUNT YOUR MEDALS
AND FILL YOUR INSIGNIA AND ORNAMENT NEEDS.

Summer Service Gabardines	Winter Service Uniforms	Blue & White Evening Dress
for Spring Delivery	for immediate delivery	2 evening dress shirts, 2 collars,
Blouse	Coat & Trousers	\$109.50
Trousers	Topcoat	\$89.50
Shirts	Black Tuxedo Coat to go with Trousers of White	miniature medals, mounted, cummerbund, vest, 2 collar buttons, white
Dacron & Cotton	Mess Jacket	\$65.00
Dacron & Wool	White Tuxedo Coat	\$35.00
	Boat Cloak	\$100.00
		\$300.00 complete.

Campaign Hats (Add \$2 for post.)	Engraved Swagger Stick	Swords & Accessories
Officer	\$14.50	\$90.00
Enlisted	10.50	60.00

Engraved Calling Cards with Plate: Officers \$12 Wives \$8

CUSTOMER ORDER BLANK

PLEASE PRINT — FILL ALL BLANKS

Name _____
Address _____

Articles Desired _____

Special Fitting Problems _____

Height _____ Pants Inseam _____ Seat _____ Cap _____

Weight _____ Neck _____ Sleeve _____ Glove _____

Waist _____ Chest _____ (outseam) Shoe _____

**SHOE REPAIRING, USING O'SULLIVAN, AMERICA'S NO. 1 HEEL
(ORTHOPEDIC WORK DONE)**



1958 BOUND VOLUMES

Marine Corps Gazette

**Beautifully bound in heavy green buckram and
stamped in gold, these bound volumes will keep your
reference material in good condition for years.**

GAZETTE BOOKSHOP \$7 BOX 1844, QUANTICO, VA.

while
s on
un is
ces-
umes
most
cop-
the
eap-
urce
nais-

quad-
the
mu-
rob-
oon-
the
and
dule
ight
to
con-
pro-
de-
ense
the

hule
nnel
sive
the
llless
all
me-
and
the
ible
ex-
een
ack
up
of
3A1
an-
ap-
nd-
9A4
ded

ted
be
nge
the
atic
roun-
ing
nts
rifle
ma-

urray
959



THE DIVINE WIND, Japan's Kamikaze Force in World War II

RIKIHEI INOGUCHI and TADASHI NAKAJIMA, with ROGER PINEAU. 240 pages, illustrated. U. S. Naval Institute, Annapolis, Md., 1958. \$4.50

The title of this dramatic book derives from the ideographs for *Kamikaze*, or Divine Wind—the storm which is said to have miraculously saved Japan from defeat at the hands of an invading fleet of Mongols in the 13th Century. It would have taken a similar miracle to have saved Japan from the fatal threat which she faced in 1944-45. Adm Takijiro Ohnishi, newly appointed commander of Japanese naval air forces in the vital Philippines theater in October 1944, fully comprehended the nature of Japan's danger. Yet this flying admiral then possessed only a few dozen planes with which to try to stem the American invasion of Leyte. In a desperate gamble for time—time which Adm Kurita sorely needed, to seek a naval decision in Leyte Gulf—Ohnishi proposed to neutralize US naval air power "for at least one week." Since conventional attack now appeared hopeless, Ohnishi hit upon the emergency expedient of using 13 bomb-laden "special attack" fighter planes to crash-dive into the flight decks of American aircraft carriers—the most dangerous menace. Thus was the *Kamikaze* force spawned to meet the new Mongols of the 20th Century!

From the modest beginnings at Mabalacat and Cebu grew the massive "special attack" effort which was mounted until the last days of the war in August 1945. A total of more than 1200 Japanese naval planes and escorts were expended in the one-way trips. There was absolutely no hope of survival—and no intention. But whereas the famous *banzai* charges on land were almost exclusively self-destroying in purpose (the killing of the foe being nearly in-

cidental), the *Kamikaze* pilot was a man with a dedicated mission: to sink or cripple an enemy ship with his death. The quantitative results were hardly negligible: 34 US warships sunk, including 3 escort carriers and 13 destroyers; and 288 US warships damaged, including 15 battleships, 36 carriers, 15 cruisers and 87 destroyers.

Up to this point, the outlines of the story are fairly well known. What the authors have successfully set about doing, however, is to explain the complicated psychology and functioning of the *Kamikaze* pilot—what made him tick. At the time, many appalled Americans guessed that the Japanese suicide flyers were drugged or intoxicated



fanatics driven to their death by compulsion alone. This book, on the other hand, does much to humanize if not glorify the painful, surprisingly sustained day-to-day activities and training of the young pilots who had "already become gods, without earthly desires."

There is frequent allusion to the symbolism of cherry blossom petals, which fall at their peak—the embodiment of a *samurai's* dream. But we Americans are still rather shocked to read, a decade and a half later,

about otherwise rational pilots who fought to be chosen for the actual suicide sorties, and who could shout "Unfair! Unfair! No special favors!" when comrades were "arbitrarily" selected for missions in their stead. After all, we as a nation were electrified by the alleged report of Colin Kelly's lone death plunge into *Haruna*; but in the *Kamikaze* force we see thousands of men training daily for "optimum suicide," then crashing to their appointed death by pre-conceived design, throughout a period of over 9 consecutive months.

Left for the reader to judge, however, is the fundamental pragmatic question posed by VAdm C. R. Brown, USN, in his succinct Foreword: Was the *Kamikaze* a successful tactic? (Adm Brown himself gives an unqualified *no*, while Adm Ohnishi once admitted that "the fact that we have to resort to a thing like this shows how poor our strategy has been.") This reviewer would have liked to see some discussion (probably in Mr. Pineau's all-too-brief little Preface) concerning the possibly large effects of the *Kamikaze* operations upon US ground force planning in general (including the decision to invade the main islands in Operations OLYMPIC and CORONET), and upon the decision to employ the atomic bombs in particular. These relationships were not unimportant, as we know from the testimony of Stimson and Forrestal, for example. Expansion of this aspect might have served to place the study within its broader framework of significance.

The last chapters, to this reviewer, were the most illuminating, treating Adm Ugaki's fantastic personal suicide sortie, the last days and the credo of Adm Ohnishi, and the *Kamikaze* controversy in general. Most remarkable, however, are the "last letters home," wherein, as Adm Brown puts it, we catch "fleeting glimpses of tortured souls . . . behind the facade of this extraordinary history."

The authors are eminently well qualified to handle the subject. Inoguchi, a former captain and staff officer, and Nakajima, a former commander and naval aviator, were both Naval Academy graduates connected with the Special Attack Force since its inception. The American co-author, Pineau, is a naval historian

known for his distinguished work on the Morison histories and for his collaboration on the *Midway* opus.

This very attractively designed book, profusely illustrated and possessing detailed appendices, is a welcome addition to the still sparse but slowly growing literature in English on the war in the Pacific as seen through Japanese eyes. Both the general reader and the professional military man will find much of provocative interest and profit in *The Divine Wind*.

Reviewed by Dr. Alvin D. Coox

Ed. Dr. Coox is an Instructor in History, University of Maryland, Far East Division, and is currently residing in Tokyo. He collaborated with Col Saburo Hayashi in the preparation of the English language edition of *The Japanese Army in the Pacific War*, soon to be published by The Marine Corps Association.

SOVIET STRATEGY IN THE NUCLEAR AGE

RAYMOND L. GARTHOFF. 274 pages. Frederick A. Praeger, Inc., N.Y. \$4.50

Soviet Strategy in the Nuclear Age is an exposition of current Soviet military nuclear concepts and doctrines. In presenting this study, the author utilized Soviet military literature consisting of official and semi-official publications, various service journals, periodicals and newspapers. His methodology is sound and cannot be easily refuted.

Mr. Garthoff, in presenting the Soviet military blueprint, first introduces the reader to Soviet politics. The Communist Party and government set the framework of military thinking in the USSR and it is extremely rare to see any divergence from the so-called "party line."

Next, the author gives a brief description of the organization and composition of the armed forces. This, in itself, will indicate why Soviet military thought progresses along certain definite paths.

The USSR has always asserted the belief that the primary objective of military operations is the destruction of hostile military forces, and has never subscribed to the taking of "real estate" per se. From this fundamental belief, the author demonstrates how the Soviet Armed Forces plan to conduct any possible future wars.

It is also pointed out that the USSR considers strategic bombing as "defective in its foundation," and rejects the strategy of economic-in-

dustry bombing (including thermonuclear and nuclear weapons) in winning any war. The Soviets do, however, believe in this type of warfare as supplementing but not replacing normal military operations. Mr. Garthoff brings forth the Soviet rejection of complete reliance on the "ultimate" weapon and full belief in balanced forces.

The question of "nuclear deterrence" versus "local wars" utilizing conventional arms, is brought to the forefront. An extension of this question is the problem of a major or limited non-nuclear war. The probable solutions to such questions and problems, as supported by the Soviet Armed Forces, are clearly revealed by the author.



The book also portrays an image of how the Soviets depict us. Concepts and doctrines as applied to the Soviet Air, Naval, and Land forces, in conjunction with missiles, will be of intense interest to all professional military men.

One of the most interesting chapters indicates what the Soviet strategy will be in 1970 and beyond.

A reader will have good cause to ask if this study is based on fact or if the hundreds of quotations of senior Soviet officers are true. The answer is readily apparent, considering the consternation that would result throughout the USSR if these public utterances and writings were all false. There would be mass confusion. In addition, the reader receives an additional safeguard when reading the works of an author such as Mr. Garthoff who is a recognized specialist and analyst of the USSR.

Reviewed by Maj E. W. Dzialeo

Ed: Secretary of the Marine Corps Landing Force Development Center, this reviewer has attended a foreign area specialist training course on the Soviet Union.

FIRST BLOOD

W. A. SWANBERG. 339 pages, illustrated. Charles Scribner's Sons, N.Y. \$5.95

Mr. W. A. Swanberg has taken one battle in the Civil War, and around that one brief action has woven a tale which should make the average reader reluctant to stop his reading. This is historical suspense at its best.

First Blood is primarily the story of 128 men, the defenders of Fort Sumter. The book tells of their fortitude and their gallantry, but above all, it delves into their souls and recounts their inner thoughts and struggles.

The doubts, decisions and resolve of one of these men should fascinate the military leader, for here we see a Major of Artillery in the United States Army placed in a position where he is led to believe that war or peace depends on his daily decisions. Maj Anderson, the Commanding Officer of Fort Sumter, is forced to have his men suffer the discomforts of hunger, cold and worst of all, humiliation at the hands of the zealots of Charleston.

The ever present suspense of this story is provided by observing the fate of the individuals of this garrison. Fort Sumter is the powder keg which will cause the country to explode into Civil War. President Buchanan and everyone else in Washington is aware of that. However, the President does not wish to be the one to set the match to the powder keg's fuse, and so by inaction, weakness and trickery, he tries to forestall the day of decision until he is relieved of his duties by Abraham Lincoln.

In addition to a suspenseful tale, the book has other interesting features. The baseball advocate will be fascinated by the role of Abner Doubleday, the Yankee Abolitionist Captain serving under Maj Anderson. And those who are acquainted with the city of Charleston will enjoy the detailed descriptions of the Charleston harbor and city in the year 1861.

Here is a study of a leader facing intricate problems. Maj Anderson's skill in handling them may well be enlightening to many of us.

Reviewed by Maj H. D. Fredericks

Ed: The reviewer is on duty with the Officer Procurement Office, New York City.

WORLD BENEATH THE WAVES

DR. GILBERT DOUKAN. Translated by A. and R. M. Case. 345 pages, illustrated. John De Graff, Inc. N.Y. \$6.00

Since WWII an increasing number of people have taken up the sport of skin diving. As a result, a great deal of knowledge pertaining to the last great frontier on earth, the sea, has been brought forth. The underwater world is constantly revealing new facts. In the past few years many books have been written about the sea and its various aspects. This is another book which deals with the submarine world. However, since we have just ended the 1958 Geophysical Year, some note should be taken of this publication. *World Beneath the Waves* will serve as good background reading to evaluate the year's discoveries and to better understand the unknown aquatic world.

Dr. Doukan's book is divided into seven broad categories: underwater hunting; the underwater hunter's contribution to submarine knowledge; submarine exploration with

apparatus; submarine possibilities afforded by modern self-contained diving suits; submarine archeology; pictures from the depths; and diving and biology of the sea.

This book covers the history of diving from the ancient breathing reeds to the Cousteau-Gagnan self-contained underwater breathing apparatus. It also traces the development of the various types of underwater observation chambers. The illustrations of both ancient and modern diving equipment are especially informative and interesting. Discoveries in the fields of archeology, biology and photography are also dealt with quite thoroughly. The tables on underwater lighting and exposure and the various techniques of underwater photography should be especially interesting to the "shutter-bug."

Dr. Gilbert Doukan, a physician, is one of the French pioneers in the underwater sport of skin diving.

All subjects covered in this book, with the exception of the author's personal experiences, can be found

in other publications. However, to the reviewer's knowledge, no other single book has so thoroughly covered all of the subjects in one volume. It is a handy reference for those interested in the sea.

Reviewed by Capt K. W. Schiweck

Ed: For the past several years this reviewer's hobby has been skin diving.

AN ATLAS OF WORLD AFFAIRS

ANDREW BOYD. 159 pages, maps. Frederick A. Praeger Inc., N.Y. \$3.00

This slim volume is a trigger-ready reference to the world's trouble spots.

By its unique format and selectivity in essentials, the *Atlas of World Affairs* gives the reader at least an even chance of posting himself on the background of an "incident" as rapidly as it erupts. The author believes that geography is about "maps and chaps." Accordingly, he very skillfully combines geography with history, economics and politics.

Each world area, large or small, well known or obscure, that perplexes or disturbs, is mapped and briefed. There are 72 maps, each with a concentrated text in explanation. There is an excellent index. The areas are chosen for importance in cold war, hot war, local dispute or global controversy. The big picture, worldwide, is given for vital resources, finances, population and such. The maps, specially drawn and in black and white, give graphic support to the text. The title, *An Atlas of World Affairs*, is truly descriptive; it fills this rather large bill through the efficient practice of what Mr. Boyd calls the "fine art of leaving out."

Mr. Boyd does no editorializing, as such, but as a Britisher, his selective process focuses in more detail on areas in which the fortunes of the U.K. and the Commonwealth are concerned. Things being as they are, the British have every reason to be experts in recurring trouble spots. Mr. Boyd has good claim to expertise also; he is Assistant Editor of the respected British magazine *The Economist*.

Reviewed by LtCol E. G. Atkin, Jr.

Ed: The reviewer is in the Policy Analysis Division at HQMC.

Marine Corps Gazette • February 1959

The Uniform Shop MARINE CORPS EXCHANGE

OPERATED BY

Jos. A. Wilner & Co.
Custom Tailors since 1897

Now your choice of a Wilner uniform individually tailored to your exact measurements . . . or a complete selection in stock of ready-to-wear sizes. Fully approved regulation fabrics—tailored with the "know how" gained in serving Marine officers for three generations. Terms gladly extended. Mail orders promptly filled. Visit us or write for prices.



THE UNIFORM SHOP

● MARINE CORPS EXCHANGE

Operated By JOS. A. WILNER & CO.

Marine Corps Schools, Quantico, Va.

The Marine Corps Association



The purposes for which the Association is formed are to disseminate knowledge of the military art and science among the members, and to provide for their professional advancement; to foster the spirit and preserve the traditions of the United States Marine Corps; to increase the efficiency thereof; and to further the interests of the military and naval services in all ways not inconsistent with the good of the general Government.

**President**

Gen R. McC. Pate

Board of Governors

LtGen M. B. Twining
MajGen J. C. Munn
BGen J. M. Masters
Col D. R. Nugent

Secretary-Treasurer

BGen S. R. Shaw

REPRESENTATIVES IN THE FIELD

Air FMF Pac
Col K. Armistead

1st MAW
LtCol H. Williams

2d MAW
Col F. W. Williams

MCAS, El Toro
Col A. G. Bunker

MAG-12
Maj J. L. Morgan

MAG-13
Capt N. E. McKonly

MAG-15
LtCol W. E. Haverty

MAG (HR) (L)-16
Maj T. J. Horgan

MAG-33
Maj C. L. Schroeder

MWHG-3
Maj T. A. White

MWSG-17
Maj Mont L. Beamon

MAG (HR) (L)-36
Maj G. C. Armstrong

MWSG-37
Maj W. L. Hooper

HGHS-3
Capt E. S. Norris

HGHS-17
Capt W. M. Wright

HGHS-37
Maj F. J. Fees

HGMS-11
Maj R. M. Moore

HGMS-12
Capt R. J. Woodard

HGMS-13
Capt T. E. Jordan

HGMS-36
Capt J. R. Burton

HMR(L)-162
1stLt G. A. Dahl

HMR(L)-163
Capt T. J. Cowper

HMR(L)-361
Capt J. J. McCauley

HMR(L)-362
Capt R. E. Hofstetter

HMR(C)-363
Capt J. H. Coffin

HMR(M)-462
Capt M. E. Day

MABS-11
Capt R. D. Klein

MABS-16
WO A. J. Ponstingel

MABS-17
Capt H. S. McClung

MABS-36
Capt W. S. Russ

MABS-37
Capt D. R. Davis

MACS-1
Maj R. C. Browning

MACS-2
Capt D. C. Danielson

MACS-3
Capt A. M. Marts

MACS-4
Capt W. L. Wilson

MACS-9
Capt F. L. Birou, Jr.

MARS-17
Capt W. E. Thomas

MARS-37
Capt W. Ohlhaver

MASS-3
Capt E. J. Dahy, III

VMA-121
Capt M. J. Marren, Jr.

VMA-212
Capt J. E. Webber

VMA-223
Capt R. A. Huckle

VMA-311
Capt M. T. Hefty

VMA-331
Maj W. L. Walker

VMCJ-1
Capt E. B. Parker

VMCJ-3
Capt C. C. Chisholm, Jr.

VMF(AW)-115
Capt D. D. Parrish

VMF-232
Maj R. W. Hohl

VMF-251
Capt R. G. Lutsko

VMF-451
Capt G. P. Warren

VMO-2
Capt C. H. Berrey

VMO-6
Capt W. R. Munter

VMR-152
Capt J. H. Dunn

VMR-253
Capt D. W. Richards

VMR-352
Capt L. W. Parrish

VMT-2
Capt E. J. Rigby



BRED FOR BRAWN . . .

THE KAMAN HUSKIE

This gas turbine powered helicopter has the stamina and brawn of its namesake, the Arctic Husky. An all-purpose aircraft, the Huskie in the role of the U. S. Air Force base rescue helicopter is ready to spring into action instantly. It's designed to be handled with mittens . . . not kid gloves.

Packing large cargo space within a compact frame, the Huskie is ready to support missile sites or carry troops, supplies and equipment with equal reliability. A direct descendant of the service-tested Kaman HOK and HUK, the H-43B Huskie proves its heritage.

PIONEERS IN TURBINE POWERED HELICOPTERS

THE **KAMAN** AIRCRAFT CORPORATION • BLOOMFIELD, CONNECTICUT
NUCLEAR DIVISION • ALBUQUERQUE, NEW MEXICO